



MEMORANDUM

October 18, 2002

TO: County Council

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Office of Legislative Oversight

SUBJECT: **Office of Legislative Oversight Memorandum Report 2002-5:
Phase I Findings on Montgomery County's Head Start Program**

In late July, the County Council asked the Office of Legislative Oversight to conduct a review of Montgomery County's Head Start program. OLO's initial findings confirm that now is the time to consider both structural and funding changes to the Head Start program.

A confluence of the following internal and external factors makes a strong case for re-thinking the County's current approach to Head Start:

- **By the 2007-2008 school year, the County must offer pre-kindergarten services to all four-year olds from economically disadvantaged families.** Following the release of the Thornton Commission report, the General Assembly enacted SB 856, The Bridge to Excellence Act. The Act requires that by the 2007-2008 school year, public schools in Maryland must offer pre-kindergarten services to all four-year olds in Maryland who are from families with an economically disadvantaged background. MCPS estimates that the number of potential pre-kindergarten slots that need to be provided in Montgomery County could exceed 4,000.
- **Head Start's structure dates back to the mid-1960's.** The structure of Montgomery County's Head Start program is essentially the same as it was when the program started in 1965, as part of the federal government's War on Poverty. Since the mid-1960's, substantial changes have occurred both in the County's population and in the overall delivery of services to low income families.
- **The federal Head Start grant covers less than 1/3 of total program costs.** The total FY 03 cost of the Head Start program in Montgomery County is \$14.6 million. The County's federal Head Start grant of \$4.1 million covers less than one-third of this amount. This is a notable contrast to the majority of other jurisdictions across the country, where the federal grant covers at least 80% of total Head Start costs.

Office of Legislative Oversight

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- **Montgomery County's Head Start program is expensive.** Montgomery County's Head Start program is currently structured to serve 1,693 preschool children, at a per pupil cost of approximately \$8,600. MCPS has expressed an interest in providing a preschool instructional program for an additional 1,000 four-year olds in FY 04; at the current Head Start price, this would require a funding increase of more than \$8 million.
- **New federal regulations will make Head Start even more expensive next year.** New federal Head Start regulations require passenger restraints for Head Start students and a bus monitor (or other trained adult) to be on board all buses that transport Head Start students. As a Head Start grant recipient, Montgomery County must comply with these new regulations no later than January 2004. MCPS' preliminary estimates are that it will cost at least \$2 million for the County to comply with the new Head Start transportation regulations.
- **This is the final year of the Extended Elementary Education Program (EEEP).** Started in 1979, EEEP is the State of Maryland's pre-kindergarten program for four year olds who are at risk of failing in school. EEEP currently serves 660 four-year olds in Montgomery County. Although the EEEP program itself is being terminated, MCPS staff expect that the \$1.2 million that the County is receiving this year from the State for EEEP will be incorporated into the total amount of financial support from the State.

The rest of this cover memo is organized into the following four summary sections:

Part A, Montgomery County Head Start (begins on page 3) summarizes the operations and costs of the County's Head Start program. Head Start is often described as a "comprehensive child development program" because it provides a package of parent involvement activities, health services, and other family support services in addition to the instructional activities associated with a typical preschool program.

Part B, Comparative Information (begins on pages 9) contains observations on how Montgomery County's Head Start program compares to other Head Start programs across the country.

Part C, The Extended Elementary Education Program (begins on page 10) provides a summary of EEEP, the State's pre-kindergarten program for four-year olds who are at risk of failing in school. Compared to Head Start, the EEEP program focuses more narrowly on instructional services.

Part D, The Research (begins on page 12) summarizes the research evidence about what works to promote school readiness. The research suggests that many types of preschool programs and child care settings work to produce cognitive and social competence in the short term. Despite Head Start's 35 year history, no reliable research studies have been conducted to determine the impact of Head Start.

The packet's attachments (listed on page 13) contain more detailed information and related material.

Next Steps

Earlier this week, Dr. Weast, MCPS Superintendent., publicly announced his plans to propose a new County preschool program "Fast Start", to begin in the fall of 2003. OLO's understanding is that "Fast Start" would replace the current Head Start and EEEP programs, and be open to four-year olds who qualify for free and reduced priced meals. "Fast Start" would be funded only with State and County resources.

The Council's Education and Health and Human Services Committees are scheduled to hold a follow-up worksession on **Thursday, October 24**. OLO recommends the Council use this worksession to:

- Hear directly from MCPS about the Superintendent's FY 04 preschool initiative; and
- Identify the issues that the Council wants OLO to address in Phase II of our work on Head Start.

A. MONTGOMERY COUNTY'S HEAD START PROGRAM

This section summarizes Montgomery County's Head Start program. A more detailed version is attached, beginning at ©1.

The federal government launched Head Start in the mid-1960's as part of the nation's War on Poverty. Often described as a "comprehensive child development program," Head Start offers a package of educational and social services to low income families with preschool children.

Both the County Government and MCPS are involved in the administration of Head Start. The Community Action Agency is the official "grantee" that receives federal Head Start funds, while MCPS is the primary "delegate agency" that operates much of the program.

FY 03 Total Program Costs and Sources of Funding

Head Start in Montgomery County is funded through a combination of federal, state, and County funds. The total cost of Montgomery County's Head Start program is approximately \$14.6 million, of which:

- \$9.7 million (67%) is County-funded;
- \$4.6 million (31%) is federally-funded; and
- \$0.2 million (2%) is State funded.

This year, Montgomery County's federal Head Start grant totals \$4.1 million.¹ The County Government keeps about 25% of the federal Head Start grant and passes the other 75% on to MCPS.

- MCPS uses its \$3 million share of the federal Head Start grant to defray some of the salary and benefit costs of teachers, instructional assistants, and other staff (e.g., psychologists, family service workers) who directly serve the federally-eligible Head Start students.
- The County Government uses its \$1.1 million share of the federal Head Start grant to pay for: School Health Services staff (i.e., nurses, health technicians, and dental hygienists) who work directly with Head Start students; the contracts that the County holds with child care centers for the Community Based Head Start, Expansion Head Start, and wraparound child care pilot programs; and for some overall grant administration/management.

More details on where the money for Head Start comes from and how it is spent begins found at © 23.

Eligibility Requirements and Program Capacity

For the current (2002-2003) school year, the County's Head Start program is funded to provide educational and other services to 1,693 three and four-year olds and their families. Specifically, this includes funding for:

- 831 three and four-year olds, who meet the federal government's income eligibility requirements; and
- 862 four-year olds, who meet higher income eligibility requirements established by the County.

Federal Head Start regulations require that a minimum of 10% of enrollment opportunities be made available to children with disabilities.

Recruitment and Enrollment

Head Start's primary recruitment effort takes place in the spring. With the movement of children into and out of the program, actual enrollment throughout the year generally remains within 50 slots of full capacity. Children from lower income families consistently receive enrollment priority in Head Start. MCPS staff report that four-year old children who meet the federal Head Start income requirements are always placed.

The Head Start office maintains a "placement" list of additional children who meet the eligibility requirements for Head Start; this list is used to fill classes as vacancies occur during the year. As of mid-October 2002, there are approximately 300 four-year old children on MCPS' placement list for Head Start.

¹ The other federal funds (\$0.5 million) are almost all for free/reduced priced meals for Head Start children.

Structure and Components of the Head Start Program

This year's 1,693 Head Start program slots are allocated among 100 classes:

- 96 Head Start classes are located in MCPS schools; and
- Four Head Start classes are located in private/non-profit child care centers.

The Head Start classes offered in MCPS schools are known collectively as "School-based Head Start." These 96 classes along with the associated package of health and other social services provided to Head Start children and their families represent the core of what Head Start is in Montgomery County.

The four Head Start classes located in child care centers are considered part of a pilot project to provide Head Start within the context of full-day/year-round child care services. The impetus for these pilot sites was the federal welfare to work initiative. Two of the classes offered in private/non-profit child care centers are known as "Community Based Head Start" and two are known as "Expansion Head Start."

The Curriculum

The Head Start curriculum is designed to engage children in activities that develop their social, intellectual, emotional, linguistic, and physical development. Head Start classroom activities include opportunities for children to:

- Talk, listen and converse together;
- Enjoy listening to and dramatizing stories;
- Develop small and large muscles;
- Paint, draw and create;
- Explore science material;
- Measure, count, and classify;
- Recognize names, colors, shapes, numbers, and letters;
- Solve problems;
- Take part in dramatic play;
- Dance, sing and make music;
- Work puzzles and build with blocks;
- Learn to share and cooperate;
- Enjoy field trips and multicultural activities.

Location, Class Size, and Length of Class

For the current school year, the 96 school-based Head Start classrooms are in 57 elementary schools, one high school, and the McKenney Hills Center. The maximum class size for school-based Head Start classes ranges from 12 to 20 children, depending on the age and special needs of the children enrolled, and the number of classes taught by the teacher. The length of Head Start classes varies from 2.5 hours to 6 hours:

- 61 classes are three hours and 15 minutes in length. These classes are predominantly federally-eligible children in morning Head Start classes.
- 30 classes are two hours and 30 minutes in length. These classes are limited to four-year old children who meet County not federal eligibility requirements.
- Four of the Head Start classes are four hours in length. These are primarily smaller classes for children with special needs.
- One Head Start class in six hours in length. This is the single classroom (located at Maryvale ES) for children who are living in a homeless shelter.

Food and Nutrition Services

The federal Head Start Performance Standards require that children in a part-day program must receive meals and snacks that provide at least 1/3 of the child's daily nutritional needs. Family-style lunches are served daily in all Head Start classes. Head Start students attending classes located in the MCPS schools that serve a free breakfast to all students also receive breakfast.

Staffing

All 96 of the school-based Head Start classes are staffed by one certified MCPS teacher and one MCPS instructional assistant (IA). All teachers have Bachelors' or Masters' degrees and have Maryland State Department of Education Early Childhood Education certification. A majority of the IAs are current or former Head Start parents.

Head Start students are also taught by MCPS Physical Education, Music, and Art teachers for 20 minutes each a week (10 FTEs in FY 03). MCPS psychologists (4.2 FTEs in FY 03) and speech pathologists (9.4 FTEs in FY 03) are also assigned to meet the needs of Head Start children.

Health services

Health services are an integral part of the Head Start program. Staffing for the health services component of Head Start is provided by the Department of Health and Human Services' School Health Services Division. The Head Start classrooms are served by a combination of health specialists, nurses, health technicians, dental hygienists, and an outreach eligibility worker.

Five full-time nurses and three dental hygienists are assigned to Head Start. The school nurses and health room technicians assigned to all MCPS schools also provide health-related services to Head Start children. Specific health services activities for Head Start children and their families include:

- Health screenings and appraisals;
- General health education;
- Medical, dental, and nursing consultations;
- Referrals for remediation of specific health problems; and
- Assistance with enrolling in a plan to receive ongoing health care, i.e., helping the family secure a "medical home."

Parent involvement

Parent involvement has consistently been a key component of the Head Start program and is required explicitly by the federal Head Start Performance Standards. The concept is that children gain more from the instructional program when their parents are involved. In addition, parent involvement demonstrates to children that their parent believes learning is important and provides parents an early opportunity to learn about the school system.

The Family Service Workers (whose responsibilities are more fully described below) plan and conduct many of Head Start's parent involvement activities, which include:

- Working in the classroom as volunteer;
- Helping at home to reinforce what children learn in school;
- Participating in the Head Start Policy Council; and
- Attending training/education programs (e.g., nutrition, healthy life style choices, computer training) designed specifically for parents of Head Start students.

Other Family Support Services

Since its inception, one of the signature elements of Head Start has been the package of support services provided to the families of Head Start students. The federal Head Start Performance Standards explicitly require that family support services be provided.

Much of this work in Montgomery County is accomplished by a team (23 FTEs) of social workers and Family Service Workers who are MCPS employees. Almost all FSWs are former Head Start parents.

FSWs are assigned to work with Head Start families (by school) to determine each family's overall strengths and needs. At any given time, each FSW is actively working with 40-50 Head Start families. Depending upon the unique needs of each family, the FSWs and other Head Start staff link parents to the appropriate support services in the community. Head Start staff help families identify and obtain services such as: child care/child support; clothing and food; training/educational opportunities; health care; housing; literacy/ESOL/GED/library services; and shelter/protective services.

Transportation

MCPS provides school bus transportation services to and from school for many of the children enrolled in school-based Head Start. Some of the Head Start students do not need school bus transportation, either because they are in walking distance of the schools they attend or because their parents have chosen to transport their child to school.

A new federal regulation governing the transportation of Head Start children will require MCPS to make substantial changes to how Head Start children are transported. Beginning in January 2004, Head Start children must be seated in height and weight appropriate child restraint systems; in addition, there must be a bus monitor or other trained adult on the bus at all times. For more on the legislative background and potential fiscal impact of this new requirement, see © 109.

Wraparound child care services

A subset of the children who attend school-based Head Start participate in a program that also provides before and after school childcare in a licensed child care center at no cost to the parents. Federal Head Start encouraged local grantees to provide wraparound services as part of the federal government's welfare to work initiative, and as such, has provided funds to support this effort.

The Head Start grant portion to the County for this wraparound service for the current school year is \$187,255. This amount was based upon an assumption of service to 36 children from 11 Head Start elementary school sites.

Community Based Head Start

For each of the past five program years, a total of 30 Head Start slots have been available at two child care centers: the Silver Spring YMCA and the Silver Spring Presbyterian Church. These two Head Start sites, funded through a combination of federal Head Start funds and child care subsidy funds, operate under contracts to the Community Action Agency.

While Community Action Agency staff are responsible for all aspects of contract administration and management, MCPS staff are responsible for the recruitment and eligibility determination of the students in the Community Based Head Start classrooms.

The major differences between the Community Based Head Start program and school based Head Start program are that:

- The Community Based Head Start programs operate all day (i.e., 7:00 AM to 6:00 PM) and year round;
- All participating families must meet the federal Head Start income guidelines and be approved to receive a child care subsidy either through the state's Purchase of Care program or the County's Working Parents Assistance program;
- Transportation to the Community Based Head Start program classrooms (located in child care centers) is the responsibility of the parents; and
- The classroom staff of the Community Based Head Start program are employees of the child care center and not MCPS.

Expansion Head Start

Beginning last month, (September 2002), another Head Start model known as "Expansion Head Start" began operating in the County. Expansion Head Start is a full day, school-year program with capacity for 17 federally-eligible Head Start children.

The single Expansion Head Start site in operation is located in the Peppertree Child Care Center in Germantown. The Community Action Agency is currently seeking a second contractor to provide a similar package of services to an additional 17 children.

The most unique aspect of Expansion Head Start is that program staffing is being provided jointly by employees of the child care center and MCPS. Specifically, during the school year, one MCPS teacher (.6 FTE) and one MCPS Instructional Assistant (.5 FTE) are providing classroom instruction for 3 hours and 15 minutes, each morning Monday through Friday. For the rest of the time, staff members are employees of the Peppertree Child Care Center.

B. COMPARATIVE INFORMATION

Head Start programs across the country vary significantly, both in terms of basic structure and the range of services provided. As a result, it is difficult to describe the characteristics of a prototypical Head Start program and difficult to make definitive findings about how Montgomery County's Head Start compares to other places.

However, using information from a 1998 General Accounting Office report and some program characteristics data compiled by the federal Head Start program office, the following comparative observations can be offered:

Type of service provider – Over 80% of the Head Start providers across the country are non-governmental organizations. In contrast, Montgomery County provides Head Start through a government based community action agency and the local school district.

Program facilities – Head Start centers across the country typically are not located in school buildings. Most are in religious facilities (21%), private space (21%), or other government buildings (24%). In Montgomery County, 96% of the classes are in elementary schools.

Teacher credentials – Approximately 75% of the Head Start teachers across the country have an associate's degree or a child care certificate. In Montgomery County, 93% of Montgomery County Head Start teachers have a BA or Masters' degree in early childhood or a related field.

Program eligibility – Most Head Start programs across the country only serve children living in families with incomes below the federal poverty guidelines. In contrast, Montgomery County is among a minority of programs that serves non-federally eligible children. Approximately half of the 1,700 children in the County's Head Start program meet the higher income guidelines established by the County.

Age of children enrolled – Nationally, Head Start serves a mix of three and four-year olds; specifically 57% of the children enrolled in Head Start are four-years old, and 43% are three years or younger. In Montgomery County, 86% of the federally-eligible children enrolled in the County's Head Start program are four-year olds and 14% are three-year olds.

Dominant language of children enrolled – Nationally, the languages of Head Start children are English (74%), Spanish (22%) and other – Asian and Native American (4%). For the federally-eligible children enrolled in Montgomery County's Head Start program, 31% report Spanish as their dominant language and 10% report an Asian language as their dominant language.

Program length – Since welfare changes were enacted in 1996, the federal Head Start program has encouraged the provision of full day, full year care. Full day programs are provided to 39% of Head Start children nationally and 36% of Head Start children statewide. In Montgomery County, 4% of the children are enrolled in full day care.

Coverage of program costs by the federal Head Start grant – Nationally, federal funding pays for four-fifths of the Head Start program costs. In Montgomery County, the federal Head Start grant covers less than one-third of total program costs.

For additional data and tables that compare selected County Head Start program characteristics to state and national program data, see the attachment that begins at ©47.

C. THE EXTENDED ELEMENTARY EDUCATION PROGRAM (EEEP)

The Extended Elementary Education Program (EEEP) is a state pre-kindergarten program for four-year olds who are at risk of failing in school. Started in 1979, EEEP currently serves approximately 10,000 children in one-third of Maryland's elementary schools.

The current school year (2002-2003) is the final year that the Maryland State Department of Education (MSDE) will provide local school districts with funds that are earmarked for EEEP. Beginning with the 2003-2004 school year, the County will continue to receive a similar amount of financial support from the State for preschool programs, but the County will have more discretion over the structure of pre-kindergarten services delivered locally.

Program Characteristics

The Maryland State Department of Education monitors the EEEP program. State regulations require an EEEP site to operate a morning and afternoon session five days a week for 2.5 hours each day. The maximum enrollment in each EEEP classroom is 20 students. EEEP classrooms are staffed with one State-certified teacher and a full-time instructional assistant. A second instructional assistant is available to promote and support parent involvement.

To be eligible for EEEP, a child must be four years old and meet at least one of the following criteria:

- Limited English proficiency;
- Homeless;
- Prior participation in Head Start or Even Start;
- An emergency/health situation; or
- Other "at risk" home or family circumstance.

A local school district may give priority for enrollment in EEEP to a child who lives in the school attendance area (where the EEEP classroom is located), or to a child who faces an emergency or other special family situation. A copy of the application for EEEP is attached at © 46.

COMPARISON OF HEAD START AND EEEP PROGRAM CHARACTERISTICS

CHARACTERISTICS	PROGRAM	
	MCPS HEAD START	EEEEP
SAME		
Educational Curriculum	MCPS Program of Studies, Pre-Kindergarten Level	MCPS Program of Studies, Pre-Kindergarten Level
Teacher Qualifications	Bachelors Degree in Early Childhood Education or Related Field	Bachelors Degree in Early Childhood Education or Related Field
Teacher Home Visits	Yes	Yes
PE, Art and Music Classes (20 minutes/week each)	Yes	Yes
MCPS Bus Transportation	Yes	Yes
DIFFERENT		
Performance Standards	Federal Head Start Performance Standards	Maryland State Dept. of Education Quality Standards
Age	Three- and four-year olds	Four-year olds only
Eligibility Criteria	Household income must be below established guidelines.	Limited English proficiency, homeless, prior enrollment in Head Start or Even Start, an emergency health situation, or other "at risk" home or family circumstance.
Length of Class	30 classes are 2.5 hrs., 61 classes are 3.25 hrs., 4 classes are 4 hrs., and 1 class is 6 hrs..	2.5 hours
Student - Teacher Ratio	20:2 to 12:1 (Depends on students' age, teacher' schedule, and children with special needs.)	20:2
Meals	Lunch	Snack
Health Services	Enhanced level of health screening and referral services provided by team of nurses, health technicians, and dental hygienists assigned to Head Start.	Standard level of school health services provided to all MCPS students
Other professional services	Team of psychologists & speech pathologists assigned to Head Start, consult with teachers and provide some direct services to children.	Standard level of support provided to all MCPS students
Parent Involvement/Activities	Formal program of parent education and involvement (e.g., Parent Policy Council) consistent with Federal Head Start Performance Standards.	Limited program of parent involvement
Family Support Services	Social workers and Family Service Workers provide direct support to Head Start families; activities include crisis intervention, goal setting, and help linking to social services appropriate to individual families' needs.	None

The chart on the previous page compares the key program characteristics of Head Start and EEEP. Significant differences are that Head Start includes:

- A more extensive program of parent involvement;
- A team of psychologists and speech pathologists assigned to support Head Start classes;
- An additional level of health-related services provided by a team of nurses, health technicians, and dental hygienists assigned to the Head Start program; and
- A package of direct family support services provided by social workers and Family Service Workers.

FY 03 EEEP Budget/Current Program Capacity

The FY 03 MCPS budget for the EEEP program is \$1.8 million. \$1.2 million (67%) of this amount comes from the state (MSDE) with the balance of \$0.6 million (33%) paid for by the County.

This year, EEEP is funded to serve 660 children. For the 2002-2003 school year, EEEP classrooms are located in 17 MCPS schools. All 17 of these schools have Title I programs; and 16 of the 17 schools also house at least one Head Start class.

D. SUMMARY OF RELEVANT RESEARCH FINDINGS

At the Council's direction, OLO conducted a research review to determine what models work to achieve school readiness. The highlights of the research are as follows:

- The quality of maternal care giving is the strongest predictor of a child's cognitive competence.
- A wide variety of approaches and settings work to get children ready for school; this includes half day preschool, full day child care, home/informal care, and one on one tutoring.
- Regardless of whether care is provided by teachers in child care settings, by relatives or by in-home providers, better training and smaller child staff ratios lead to better and more interactions between children and adults, which in turn lead to improvements in children's cognitive and social competence.

A substantial body of research on child care during past 20 years that has found higher quality care to be associated with better cognitive, language and social development for children and lower quality care with poorer outcomes in these areas. One study reported that children who have traditionally been at risk of not doing well in school are more affected by the quality of child care experiences than other children.

Locally, 2001-2002 data from the Maryland Model for School Readiness (MMSR) support the finding that children can show up ready for school from different places. See © 54 for Montgomery County MMSR data for the 2001-2002 school year.

In terms of preschool programs, research studies of well implemented programs consistently document short term benefits in cognitive development and behavior. Children who attend such programs consistently show higher levels of cognitive development, early school achievement and motivation compared to children who do not participate in such programs.

Research studies of a group of so-called “model preschool programs” show long term benefits as well. A handful of research studies have shown that children who participated in well-funded, model programs were more likely to graduate from high school, to do better academically and to achieve a better rate of economic success as adults. These children were also less likely to be held back, to need special education and to enter the juvenile justice system.

Research evidence does not exist to show that the benefits shown for small scale programs extend to large scale, publicly funded programs – such as Head Start or state funded preschool programs. The evidence of long term benefits is weaker for large scale programs which also suffer from uneven quality.

- **Head Start** - In 1997, the federal General Accounting Office reported to Congress that no large scale evaluation of Head Start with a nationally representative sample had been conducted. In response to a Congressional mandate to remedy this oversight, the federal government awarded Westat a \$28.3 million evaluation contract to determine the impact of Head Start on children’s school readiness. Researchers will collect data on 5,000 to 6,000 preschoolers from 75 programs across the country and will follow the children through the spring of first grade. The final report is due in December 2006.
- **State funded preschool programs** - A meta-analysis (of 13 of 33 state preschool programs) showed modest support for positive effects on developmental performance, school performance and attendance and reduction in grade retention.

For additional information on the research, including characteristics of the different approaches and their associated outcomes, see the attachment that begins at © 58.

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OVERVIEW OF THE HEAD START PROGRAM IN MONTGOMERY COUNTY

Started in the mid-1960's as part of the nation's War on Poverty, the federal government designed Head Start to offer a package of educational and social services to low income families with pre-school children. Because of the range of services provided, Head Start has been described as a "comprehensive approach" designed to help "communities overcome the educational and social handicaps of disadvantaged pre-school children through fostering partnerships with their families."¹

The federal regulations governing Head Start require that in addition to an early childhood education program, recipients of federal Head Start funds structure a program that:

- Involves the children's parents;
- Provides health and nutrition services; and
- Connects Head Start families to additional support services that are needed to address their individual needs, e.g., employment, housing, food, clothing, and family literacy.

Montgomery County's Head Start program started in 1965, and is often described as a "partnership" or "collaboration" among Montgomery County Public Schools (MCPS), the County Government, and other public, private, and non-profit service providers.

The original application to the federal government for Head Start funds was a joint effort of school and County government staff. The Department of Health and Human Services' Community Action Agency (CAA) is the "grantee" that receives federal Head Start funds, while MCPS is the primary "delegate agency" that operates much of the program. The section that reviews program costs and funding (begins at © 23) contains further explanation of the respective roles of MCPS and the County Government.

This overview presents information about Montgomery County's Head Start program as follows:

- A. **Eligibility Requirements, Program Capacity, Outreach, and Enrollment** – provides background information on the eligibility requirements for participating in Montgomery County's Head Start program, provides information on the current (FY 03) capacity of the County's Head Start program, and briefly describes the recruitment and enrollment process.
- B. **Demographic Characteristics** – provides basic demographic data (e.g., age, race/ethnicity, primary language spoken, household income) on the children enrolled in the County's Head Start program. Data for this section reflect children enrolled as of February 2002.

¹ Source: Community Action Agency, "Description of Community Partnerships and Head Start in Montgomery County."

C. **Structure of the Head Start Program** - describes the structure of the Head Start program in the County in terms of: class location, class size, staffing, hours of instruction, food and nutrition services, health services, parent involvement, other family support services, transportation, and wraparound child care services.

Section C provides information on both the school-based and non-school-based Head Start classes.

D. **Costs and Sources of Funding** – describes the roles and responsibilities of the agencies involved with the administration of Head Start, and reviews the costs and sources of funding for Montgomery County's Head Start program. Section D includes the identification of budgeted program costs and additional program costs that are not budgeted explicitly in the Head Start program budgets of MCPS and the County Government.

A. Eligibility Requirements, Program Capacity, Outreach, and Enrollment

Eligibility Requirements

To participate in Montgomery County Head Start, families must live in Montgomery County² and either:

- Meet federally-established income guidelines and have a three or four-year old child; or
- Meet County-established income guidelines and have a four-year old child.

If the child is not a naturalized citizen, then he/she must be cleared by MCPS' International Student Office. The age of the child is determined by how old he/she is by November 30 of the school year. Consistent with the changes planned for Kindergarten eligibility in Maryland, the age cutoff for Head Start will change to October 30 in the 2003-2004 school year, and to September 1 in the 2004-2005 and all future school years.

The federal Head Start regulations permit up to 10 percent of the children to be from families who do not meet the low-income criteria, but who have "special needs". In addition, the federal Head Start regulations require that a minimum of 10% of enrollment opportunities be made available to children with disabilities.

² If the child was born outside of the United States, then he/she also must be cleared by the MCPS International Student office before being enrolled.

Table 1 (© 4) summarizes the maximum income guidelines by family size that apply to enrollment in Montgomery County Head Start. The federal Department of Health and Human Services establishes the federal income guidelines and MCPS establishes the County income guidelines. Federal Head Start funds can only be used to support the program provided to children who meet the federal income guidelines, children who are disabled, or children who are characterized by “special needs.”

For comparison, Table 2 (© 4) shows the current income eligibility guidelines for free or reduced priced meals (FARMS). The data show that FARMS eligibility limits are:

- Higher than the federally-established Head Start income guidelines for all family sizes;
- Lower than the County-established Head Start income guidelines for households of one, two, and three persons; and
- Higher than the County-established Head Start income guidelines for households of four or more persons.

Head Start Program Capacity

For the 2002-2003 school year, the Head Start program in the County has the capacity to provide educational and other services to 1,693 three and four-year olds and their families. For the current school year, Head Start is funded to serve:

- 831 three and four-year olds, who meet the federal government’s income eligibility requirements; and
- 862 four-year olds, who meet higher income eligibility requirements established by the County.³

More details about the number of classrooms and the rules governing class size maximums begin at © 12.

Recruitment and Enrollment

Head Start’s primary outreach and recruitment effort takes place in the spring of each year, with the target of enrolling eligible children in classes that begin in September. Recruitment activities, which involve both MCPS and County Government (primarily Department of Health and Human Services) staff, are designed to identify families whose children are eligible for either Head Start and/or EEEP (Extended Elementary Education Program) and to encourage them to apply.

³ There are an additional 30 four-year olds who attend Head Start classes at New Hampshire Estates ES and for whom there are no income eligibility requirements; MCPS funds one PreK teacher and one Instructional Assistant at New Hampshire Estates outside of the Head Start program budget.

TABLE 1
HEAD START: MAXIMUM INCOME GUIDELINES FOR 2002-2003 SCHOOL YEAR

Family Size	Maximum Family Income for Head Start:		
	Federally-eligible children*	County-eligible children**	Special Cases***
1	\$8,860	\$21,456	\$25,913
2	\$11,940	\$24,536	\$30,533
3	\$15,020	\$27,616	\$35,153
4	\$18,100	\$30,696	\$39,773
5	\$21,180	\$33,776	\$44,393
6	\$24,260	\$36,856	\$49,013
7	\$27,340	\$39,936	\$53,633
8	\$30,420	\$43,016	\$58,253
9	\$33,500	\$46,096	\$63,873
10	\$36,580	\$49,176	\$67,493

*The federal Department of Health and Human Services establishes this guideline, which represents the "poverty" level. The amounts set by the federal government are uniform throughout the country and revised annually.

**The MCPS Head Start office establishes this guideline, which for the current year is the poverty level plus \$12,596 for each level of family size. At © 35 is a copy of the more detailed breakdown used by the Head Start office to classify families according to their income. In practice, this more detailed classification structure is used to give priority placement to children from families with lower incomes.

***The MCPS Head Start office also establishes this guideline, which for the current year is calculated as the poverty level plus \$8,415 plus 50% for each level of family size.

TABLE 2
INCOME ELIGIBILITY FOR FREE OR REDUCED PRICE MEALS (FARMS)
EFFECTIVE JULY 1, 2002-JUNE 30, 2003

Household Size	Annual Income
1	\$16,391
2	\$22,089
3	\$27,787
4	\$33,485
5	\$39,183
6	\$44,881
7	\$50,579
8	\$56,277
9	\$61,975
10	\$67,673

A summary description of this year's Head Start recruitment efforts, prepared by MCPS staff, is attached at © 36. For more on EEEP see cover memo to this packet.

Due to the transient nature of the population served by Head Start, there is routine movement of children into and out of Head Start classes throughout the school year. As a result, program recruitment and enrollment is an ongoing process throughout the school year. According to staff, the enrollment process also provides the opportunity for families to learn about child care subsidy programs, health services, and related support services that are available.

According to Head Start staff, most school-based Head Start classes are fully enrolled by October of each school year. With the movement of children into and out of the program, actual enrollment throughout the year generally remains within 50 slots of full capacity.⁴

Under MCPS' current enrollment practices, children from lower income families consistently receive enrollment priority in Head Start. Four-year old children who meet the federal Head Start income requirements are always placed. If the Head Start classes at a child's home school site are filled, then Head Start staff works with MCPS transportation staff to identify other Head Start sites in the cluster that these students can be bused to. The number of three-year old children who are placed (including those from families that meet the federal income eligibility requirements) is limited by the relatively small number of classes that are staffed to include three-year olds.

Children who meet the County income requirements are placed as soon as possible, with lower income families receiving priority. The most common problem is that a child's home school Head Start class is full, even though there are slots available in classes located in other parts of the County. In some cases, it works to place these children in an Extended Elementary Education Program (EEEE) class in lieu of a Head Start class.

The Head Start office maintains a "placement" list of additional children who meet the eligibility requirements for either Head Start and/or EEEEE. This list is used to fill classes as vacancies occur during the year. As of mid-October 2002, there are approximately 300 four-year old children on MCPS' placement list for Head Start. All of these children come from families with incomes above the federal guidelines, but below the County's maximum income guidelines for the program.

⁴ During their five years of operation, enrollment in the two Community Based Head Start classrooms (total capacity for 30 children) has been more unpredictable, with enrollment consistently running under capacity. See © 21 for more discussion on this issue.

B. Demographic Characteristics of Enrolled Head Start Students and their Families

The tables that begin on © 7 summarize the demographic characteristics of the children and families participating in Montgomery County Head Start. The total number of responses for County-eligible children varies based upon the data available in MCPS' records.

Table 3 and 4 (© 7) list the number/percent of Head Start families by household income and the employment status of the federally-eligible vs. County eligible families. In sum:

- 50% of Head Start children live in families with household incomes of less than \$18,000, and 92% live in families with household incomes of less than \$30,410.
- For about half (49%) of the children from families who meet the federal-income guidelines, the head of the household is reported as working full-time, with an additional 23% reported as working part-time.
- For children from families who meet the County-income guidelines, 85% report a head of household working full time with an additional 8% working part-time.

Table 5 (© 8) shows the age of children enrolled in Head Start and Table 6 (© 8) provides data on their race/ethnicity, with a breakdown of the children who meet the federal-income guidelines vs. those who meet the County-income guidelines; Table 7 (© 8) provides data on the dominant language of Head Start students, and Table 8 (© 9) summarizes data on the race/ethnicity of all MCPS students. The data show that:

- The County's Head Start program predominantly serves four-year olds, with fewer than 100 of the more than 1,600 children enrolled being three years old.
- 82% of all Head Start students are either African American or Hispanic. This percent is more than double the 37% percent of African American and Hispanic students represented in MCPS as a whole;
- Compared to the cohort of Head Start children who come from families that meet the federal-income guidelines, the cohort of Head Start children who meet the somewhat higher County-established income includes a lower percent of African American children (33% vs.44%), and a higher percent of Hispanic/Latino children (50% vs. 37%).
- The data on dominant language parallel the above finding, with Spanish reported as the dominant language of 35% of the federally-eligible children, and 45% of the County-eligible children.

During the 2001-2002 school year, Head Start enrolled a total of 127 children that had a professionally diagnosed disability. Program records indicate that 93% (118) of these children were diagnosed with a speech/language impairment (Table 9, © 9).

TABLE 3
INCOME OF HEAD START HOUSEHOLDS

Income of Head Start Households*	Number of Children	Cumulative Percent of Total
\$0 - \$2,999	50	4%
\$3,000 - \$5,999	110	12%
\$6,000 - \$8,999	111	20%
\$9,000 - \$11,999	137	30%
\$12,000 - \$14,999	155	42%
\$15,000 - \$18,000	113	50%
Maximum income level established by federal Head Start Program**		
\$18,000 - \$21,714	226	67%
\$21,715 - \$23,542	94	74%
\$23,543 - \$26,291	161	86%
\$26,292 - \$30,410	132	96%
\$30,411 - \$43,322	51	100%
\$43,323 - \$62,816	2	100%
Total	1342	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) Data and MCPS Database from February 2002.
*Based on 2000-2001 federal Head Start income guidelines.

TABLE 4
HEAD OF HOUSEHOLD EMPLOYMENT STATUS

Head of Household Employment Status	Federally Eligible Children*		County Eligible Children	
	Number of Children	Percent	Number of Children	Percent
Full Time	402	49%	444	85%
Part Time or Seasonal	187	23%	42	8%
Unemployed	227	28%	38	7%
Total	816	100%	524	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) Data and MCPS Database from February 2002.

*Defined as children in households with income below maximum amounts established by Federal Head Start Program.

**Defined as children in households above federal and below County established income guidelines.

TABLE 5
AGE OF HEAD START STUDENTS

Age of Head Start Students	Federally Eligible Children		County Eligible Children		Total	
	Number of Children	Percent	Number of Children	Percent	Number of Children	Percent
4 Years Old	750	92%	791	96%	1,541	94%
3 Years Old	66	8%	34	4%	100	6%
Total	816	100%	825	100%	1,641	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) and MCPS Database from February 2002.

TABLE 6
ETHNICITY OF MONTGOMERY COUNTY HEAD START STUDENTS

Ethnicity of Head Start Students	Federally Eligible Children		County Eligible Children		Total	
	Number of Children	Percent	Number of Children	Percent	Number of Children	Percent
Black or African American	358	44%	276	34%	634	39%
Hispanic or Latino	298	37%	411	50%	709	43%
Asian	81	10%	85	10%	166	10%
White	76	9%	52	6%	128	8%
American Indian and Other	3	-	1	-	4	-
Total	816	100%	825	100%	1,641	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) and MCPS Database from February 2002.

TABLE 7
DOMINANT LANGUAGE OF HEAD START STUDENTS

Dominant Language of Head Start Students	Federally Eligible Children		County Eligible Children	
	Number of Children	Percent	Number of Children	Percent
English	427	52%	330	40%
Spanish	287	35%	370	45%
Asian Languages	81	10%	68	8%
American Indian and Other	21	3%	47	6%
Total	816	100%	815	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) and MCPS Database from February 2002.

TABLE 8
COMPARISON OF ETHNIC BACKGROUND - PUBLIC SCHOOLS TO HEAD START

Ethnicity Comparison	MCPS 2002		MCPS Head Start 2002*	
	Number of Children	Percent	Number of Children	Percent
White	66,960	49%	128	8%
Black or African American	28,697	21%	634	39%
Hispanic or Latino	21,864	16%	709	43%
Asian	17,763	13%	166	10%
American Indian and Other	1,366	1%	4	-
Total	136,650	100%	1,641	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) and MCPS Database from February 2002.

*Federal and County Eligible Head Start Students.

TABLE 9
DISABILITIES AMONG HEAD START CHILDREN

Disabilities	Number of Children	Percent
Speech of Language Impairment	118	93%
Non-categorical/ developmental delay	8	6%
Orthopedic Impairment	1	1%
Total	127	100%

Source: Combination of 2001- 2002 Program Information Report (PIR) and MCPS Database from February 2002.

C. Structure and Components of the Head Start Program

For the current (2002-2003) school year, the 1,693⁵ Head Start program slots are allocated among 100 Head Start classrooms. Of these classes:

- 96 Head Start classes are located in MCPS schools; and
- Four Head Start classes are located in private/non-profit child care centers.⁶

The Head Start classes offered in MCPS schools are known collectively as “School-based Head Start.” These 96 classes along with the associated package of health and other social services provided to Head Start children and their families represent the core of what Head Start is in Montgomery County.

The four Head Start classes located in child care centers are considered part of a pilot project to provide Head Start within the context of full-day/year-round child care services. The impetus for these pilot sites was the federal welfare to work initiative. Two of the classes offered in private/non-profit child care centers are known as “Community Based Head Start” and two are known as “Expansion Head Start.”

The Head Start Classroom Curriculum. The Head Start curriculum, which complies with the federal Head Start Performance Standards, is the same at both school-based and non-school-based sites.⁷ It is designed to engage children in activities that develop their social, intellectual, emotional, linguistic, and physical development. A description of the Head Start program (prepared by MCPS) explains that classroom activities include opportunities for children to:

- Talk, listen and converse together;
- Enjoy listening to and dramatizing stories;
- Develop small and large muscles;
- Paint, draw and create;
- Explore science material;
- Measure, count, and classify;
- Recognize names, colors, shapes, numbers, and letters;
- Solve problems;
- Take part in dramatic play;
- Dance, sing and make music;
- Work puzzles and build with blocks;
- Learn to share and cooperate;
- Enjoy field trips and multicultural activities.⁸

⁵ This 1,693 number includes: 831 slots for federally-eligible children and 862 slots for County-eligible children; it excludes the 30 slots for children from the community for the PreK/Head Start classes at New Hampshire Estates.

⁶ The Head Start classrooms located in child care centers operate under contract to the Community Action Agency (CAA). As of mid-October 2002, three of the four Head Start classrooms located in child care centers are operating. The contract award process for the fourth one is in progress; see © 19 for more information on this process.

⁷ Although it is not required under federal Head Start regulations, the Directors of the child care centers that house the two Community Based Head Start sites chose to use the same curriculum as MCPS uses in its school-based Head Start classrooms.

⁸ Source: Head Start brochure prepared by Office of Instruction and Program Development, Division of Early Childhood Services, Head Start Unit, MCPS. See © 38.

The rest of this section further describes the school-based and non-school-based Head Start classes in terms of the following parameters:

- | | |
|--|----------------------------------|
| ➤ Class location; | ➤ Health services; |
| ➤ Class size; | ➤ Parent involvement; |
| ➤ Staffing; | ➤ Other family support services; |
| ➤ Food and nutrition services; | ➤ Transportation; and |
| ➤ Number of hours of Head Start instruction; | ➤ Wraparound child care. |

It also provides information on the summer Head Start program and the PreK program at New Hampshire Estates ES.

SCHOOL-BASED HEAD START

a. Location

For the current school year, the 96 school-based Head Start classrooms are in 57 elementary schools, one high school, and the McKenney Hills Center.⁹ Table 10 (© 14) lists the schools according to the number of Head Start classes housed in the school:

- 28 schools house a single Head Start class;
- 28 schools house two Head Start classes; and
- Three schools house three or more Head Start classes.

b. Class Size

The maximum class size for school-based Head Start classes ranges from 12 to 20 children, depending on the age and special needs of the children enrolled, and the number of classes taught by the teacher. Specifically:

- The maximum class size is 20 for a class of four-years olds taught by a teacher who teaches a single Head Start class per day;
- The maximum class size is 17 for a class of four-year olds taught by a teacher who teaches one Head Start class in the morning and a second Head Start class in the afternoon;
- The maximum class size is 15 for a combination Head Start class of three and four-year olds;
- The maximum class size is 14 for a Head Start class of three-year olds;
- The maximum class size is 12 for a four hour Head Start class of special needs children.¹⁰

⁹ 17 of the elementary school that offer Head Start also offer an EEEP class in 2002-3.

¹⁰ These class size guidelines are a combination of federal Head Start Performance Standards and MCPS policy.

For the current school year, seven of the 96 school-based Head Start classes serve three-year olds, ten serve a mixed-age group of three and four-year olds; the remaining 79 classes serve only four-year olds.

c. Staffing

All 96 of the school-based Head Start classes are staffed by certified MCPS teachers and MCPS instructional assistants. All teachers have Bachelors' or Masters' degrees and have Maryland State Department of Education Early Childhood Education certification. A majority of the instructional assistants are current or former Head Start parents.

In total, MCPS allocated 55.8 FTEs of MCPS teacher time and 56.8 FTEs of instructional assistant time to the school-based Head Start classrooms. An additional part-time MCPS teacher and instructional assistant teach the Head Start curriculum in the Expansion Head Start classroom. (The County is working to identify a second Expansion Head Start site.)

In addition to the primary classroom teachers and instruction assistants, Head Start students are taught by teacher "specialists" (Physical Education, Music, and Art teachers for 20 minutes each week) assigned to the respective elementary schools that house Head Start classes. MCPS estimates that the time of the PE, Music, and Art teacher specialists totals 10 FTEs.

In addition, MCPS psychologists and speech pathologists and related service staff are available to meet the special needs of all children enrolled in Head Start classes. Psychologists (4.2 FTEs in FY 03) provide mental health consultations for Head Start families and staff. They provide guidance to the teachers and help develop behavior management support plans for individual children. The psychologists also staff the "Tot Line" which responds to telephone questions placed by Head Start family members.

Speech pathologists (9.4 FTEs in FY 03) are also assigned to meet the needs of Head Start children. In addition to providing direct service to children with Individual Education Plans (IEPs), the speech pathologists also provide general support to the teachers and at times teach special classroom lessons.

d. Hours of Head Start Instruction

The 96 school-based Head Start classes follow the MCPS calendar. Table 11 (© 15) summarizes the hours of Head Start instruction for the 2002-2003 school year, which varies from 2.5 hours to 6 hours:¹¹

- 61 classes are three hours and 15 minutes in length. These classes are predominantly federally-eligible children in morning Head Start classes.

¹¹ Federal Head Start regulations require that the length of the Head Start program be, at minimum, three and one half hours every school day. As a result of the 2001 federal evaluation of Montgomery County's Head Start program, the County reached a compromise on classroom instructional hours with the federal Department of Health and Human Services, Administration for Children and Families, Region III. Specifically, children who meet the federal income guidelines now attend Head Start classes that are three hours and 15 minutes long. The time difference is made up by the length of MCPS' school year, which results in the total number of instructional hours meeting federal Head Start requirements.

- 30 classes are two hours and 30 minutes in length. These classes are limited to four-year old children who meet County not federal eligibility requirements.
- 4 of the Head Start classes are four hours in length. These are primarily smaller classes for children with special needs.
- One Head Start class in six hours in length. This is the single classroom (located at Maryvale ES) for children who are living in a homeless shelter.

e. Food and Nutrition Services

The federal Head Start Performance Standards require that children in a part-day program must receive meals and snacks that provide at least 1/3 of the child's daily nutritional needs. Children in full-day programs must receive meals and snacks that provide one-half to 2/3 of their daily nutritional needs.

Family-style lunches are served daily in all Head Start classes. Head Start students attending classes located in the MCPS schools that serve a free breakfast to all students also receive breakfast.¹²

The Head Start program funds meals for the Instructional Assistants to sit and eat lunch with the children. Because almost all of the children participating in Head Start meet the income eligibility requirements established by the National School Lunch Act, all but a small percent of the children's lunch costs are paid for through MCPS' free or reduced price meal (FARMS) program. (The FARMS program receives a combination of federal and State funding.)

According to Head Start staff, there are some situations where there is either an inconsistency in the income reported by a family (between their application to Head Start and application to the FARMS program) or a delay in a family's applying and being accepted to participate in the FARMS program. In such cases, the Head Start program budget will generally pick up the cost of the child's lunch until the details of the child's FARMS participation is worked out.

In addition to providing lunch, the Head Start curriculum includes instruction on food groups and what it means to eat balanced, nutritional meals. Cooking and tasting activities provide children with the opportunity to establish good eating habits and try different foods.

¹² There are 14 MCPS schools that provide breakfast to all students; 11 of these 14 sites house at least one Head Start class.

TABLE 10
HEAD START CLASSES LOCATED IN MCPS SCHOOLS
2002-2003 SCHOOL YEAR

Number of Head Start Classes	Name of School	Total Classes
One Head Start class	1. Brown Station ES 2. Clearspring ES 3. Clopper Mill ES 4. Daly ES 5. Fairland ES 6. Fields Road ES 7. Galway ES 8. Georgian Forest ES 9. Glenallen ES 10. Highland View ES 11. Kemp Mill ES 12. McAuliffe ES 13. McNair ES 14. Mill Creek Towne ES 15. Poolesville ES 16. Ride ES 17. Rock Creek Valley ES 18. Rock View ES 19. Rockwell ES 20. Rosemont ES 21. Sequoyah ES 22. Seneca Valley HS 23. South Lake ES 24. Stedwick ES 25. Takoma Park ES 26. Watkins Mill ES 27. Wheaton Woods ES 28. Whetstone ES	28 classes
Two Head Start classes (in most cases this is one morning and one afternoon class)	1. Beall ES 2. Bel Pre ES 3. Bells Mill ES 4. Broad Acres ES 5. Burnt Mills ES 6. Carson ES 7. Drew ES 8. East Silver Spring ES 9. Flower Hill ES 10. Fox Chapel ES 11. Gaithersburg ES 12. Glen Haven ES 13. Greencastle ES 14. Highland ES 15. Jackson Road ES 16. McKenney Hills Center 17. Montgomery Knolls ES 18. Olney ES 19. Pine Crest ES 20. Resnik ES 21. Rolling Terrace ES 22. Rosemary Hills ES 23. Strawberry Knoll ES 24. Summit Hall ES 25. Twinbrook ES 26. Viers Mill ES 27. Washington Grove ES 28. Weller Road ES	56 classes
Three or more Head Start classes	1. Harmony Hills ES (3 classes) 2. Maryvale ES (3 classes) 3. New Hampshire Estates ES (6 classes* including enrollment of community kids equivalent to 2 classes)	12 classes
Totals	59 MCPS locations: <ul style="list-style-type: none"> • 57 elementary schools • McKenney Hills Center • 1 high school 	96 classes

*Does not include enrollment of 30 community kids, equivalent to 2 classes.

TABLE 11
LENGTH OF HEAD START INSTRUCTION FOR SCHOOL-BASED AND NON-SCHOOL-BASED
CLASSES
MONTGOMERY COUNTY HEAD START: FY 03

Length of Head Start Instruction	Number of Classes
MCPS School-Based Head Start Classes	
2 hours 30 min.	30 classes
3 hours 15 min.	61 classes*
4 hours	4 classes
6 hours	1 class
Total: 96 school-based Head Start classes	
Head Start Classes Located in Child Care Centers	
Full-day program ("Community Based Head Start")	2 classes**
3 hours 15 minutes with MCPS teacher in full-day child care setting ("Expansion Head Start")	2 classes***
Total: 4 Head Start classrooms located in child care centers	

*Excludes classrooms at New Hampshire Estates that combine Head Start-eligible four-year olds with other community four- year olds.

**These classes are located at the Silver Spring YMCA and the Silver Spring Presbyterian Church.

***As of October 2002, only one of the two Expansion Head Start classes are operating. The Community Action Agency is in the process of searching for a second child care center to participate.

f. Health services

Health services are an integral part of the Head Start program. As stated in the 2001 Annual Report of the Head Start Health Services Program, the health services goal is:

To maintain children at their optimal health so they can derive the maximum benefit from their educational experience. The short-term objectives include the assessment of each child's present health status for the early detection and *treatment of identified health problems* and determinations of a medical home.

Staffing for the health services component of Head Start is provided by the Department of Health and Human Services' School Health Services Division. The Head Start classrooms are served by a combination of health specialists, nurses, health technicians, dental hygienists, and an outreach eligibility worker.

Five full-time nurses and three dental hygienists are assigned to Head Start. The school nurses and health room technicians assigned to all MCPS schools also provide health-related services to Head Start children. Specific health services activities for Head Start children and their families include:

- Health screenings and appraisals;
- General health education;
- Medical, dental, and nursing consultations;
- Referrals for remediation of specific health problems; and
- Assistance with enrolling in a plan to receive ongoing health care, i.e., helping the family secure a "medical home."

g. Parent involvement

Parent involvement has consistently been a key component of the Head Start program and is required explicitly by the federal Head Start Performance Standards. The concept is that children gain more from the instructional program when their parents are involved. In addition, parent involvement demonstrates to children that their parent believes learning is important and provides parents an early opportunity to learn about the school system.

The Family Service Workers (whose responsibilities are more fully described below) plan and conduct many of Head Start's parent involvement activities, which include:

- Working in the classroom as a volunteer;
- Helping at home to reinforce what children learn in school;
- Participating in the Head Start Policy Council (described below); and
- Attending training/education programs (e.g., nutrition, healthy life style choices, computer training) designed specifically for parents of Head Start students.

Head Start is mandated to provide a formal structure of shared governance. The Policy Council, which meets once a month, is composed of parents of currently enrolled children, parents of formerly enrolled children, and community representatives. The federal program Performance Standards require that the Policy Council work with staff to plan, develop and/or approve all funding applications, staff hiring curriculum, and recruitment procedures. Members of the Policy Council are also required to assist program staff with the annual program assessment (also required by federal regulations).

h. Other Family Support Services

Since its inception, one of the signature elements of Head Start has been the package of support services provided to the families of Head Start students. The federal Head Start Performance Standards explicitly require that family support services be provided.

Much of this work in Montgomery County is accomplished by a team of three social workers and 23 Family Service Workers (FSWs), who are MCPS employees. Almost all FSWs are former Head Start parents, who starting working for MCPS as Instructional Assistants in Head Start classrooms.

FSWs are assigned to work with Head Start families (by school) to determine each family's overall strengths and needs. Depending upon the unique needs of each family, the FSWs and other Head Start staff link parents to the appropriate support services in the community. Head Start staff help families identify and obtain services such as:

- Child care/child support;
- Clothing and food;
- Training/educational opportunities;
- Health care;
- Housing;
- Literacy/ESOL/GED/library services; and
- Shelter/protective services.

Head Start staff estimate that, at any given time, each FSW is actively working with 40-50 Head Start families. In addition to supervising the routine work of the FSWs, the three social workers are available to provide additional direct service to families as needed.

Although the FSWs are available to work with all Head Start families, priority is placed on working with the families who meet the federal-income eligibility guidelines. Under federal Head Start regulations, these families must be offered the opportunity to develop a Family Partnership Agreement; the federal guidelines do allow a waiver to be granted to parents who choose not to participate.

A Family Partnership Agreement (FPA) is described as a process for helping families identify their strengths and develop strategies for accomplishing their personal and family goals. The form used by the FSWs to develop the Family Partnership Agreements is attached at © 39.

In addition to the direct services provided to individual Head Start families, the social workers and FSWs also:

- Participate throughout the year in Head Start's recruitment and enrollment activities;
- Meet regularly with the Head Start teacher to discuss issues related to individual children; and
- Plan and conduct parent education and related parent involvement activities.

i. Transportation

MCPS provides school bus transportation services to and from school for many of the children enrolled in school-based Head Start. The bus service that MCPS provides to Head Start children is a combination of door to door and neighborhood service. Some of the Head Start students do not need school bus transportation, either because they are in walking distance of the schools they attend or because their parents have chosen to transport their child to school on their own.

MCPS current practice is to transport Head Start children on regular MCPS school buses. A new federal regulation governing the transportation of Head Start children will require MCPS to make substantial changes to how Head Start children are transported. Specifically, beginning in January 2004, the Head Start children must be

- Seated in height and weight appropriate child restraint systems; and
- There must be a bus monitor or other trained adult on the bus at all times.

For more on the legislative background and fiscal impact of this new requirement, see © 109

j. Wraparound child care services

A subset of the children who attend school-based Head Start participate in a program that also provides before and after school childcare in a licensed child care center at no cost to the parents. For these children, MCPS provides school bus transportation to and from school to child care providers, who hold contracts with DHHS for the before and after school child care services.

The plan for this program is to provide wraparound child care services for 36 children. Federal Head Start encouraged local grantees to provide wraparound services as part of the federal government's welfare to work initiative, and as such, has provided funds to support this effort. The Head Start grant portion to the County for this wraparound

service for the current school year is \$187,255; according to Community Action Agency staff, this works out to be approximately \$130 per week per child, which is in line with the average cost for day care in the County.

MCPS identifies the children whose families are invited to participate. To be eligible for this program, the children must be attending Head Start classes at a specific school, the families must meet the federal Head Start income guidelines, and the parents must be either working or enrolled in school or other training classes.

Last year, Head Start children from 11 different schools participated in this program. The 11 schools were: Georgian Forest ES, Olney ES, Weller Road ES, Harmony Hills ES, Bel Pre ES, Twinbrook ES, Wheaton Woods ES, Rock Creek Valley ES, Maryvale ES, Beall ES, and Viers Mill ES.

For the current school year, Community Action Agency (CAA) staff report that one contract for before and after school child care is in place to serve 18 children who are attending school-based Head Start classes at Twinbrook, Maryvale, Beall, Rock Creek Valley, Wheaton Woods, or Viers Mills Elementary School. CAA is in the process of finalizing plans with three other providers to offer wraparound child care services to another 18 children. As of mid-October, MCPS staff report that two Head Start children are actually enrolled and participating in this year's program; an additional 19 children have been identified and should be enrolled in the near future.

NON-SCHOOL-BASED HEAD START

a. Community Based Head Start

For each of the past five program years, a total of 30 Head Start slots have been available at two child care centers. 15 slots have been available at the Silver Spring YMCA and 15 slots at the Silver Spring Presbyterian Church. These two Head Start sites, funded through a combination of federal Head Start funds and child care subsidy funds, operate under contracts to the Community Action Agency.

While Community Action Agency staff are responsible for all aspects of contract administration and management, MCPS staff are responsible for the recruitment and eligibility determination of the students in the Community Based Head Start classrooms.

According to MCPS staff, to be eligible to participate in either one of the Community Based Head Start programs, the family of the Head Start child must:

- Meet the federal-income Head Start guidelines; and
- Be approved to receive a child care subsidy either through the Purchase of Care (POC) or Working Parents Assistance (WPA) program.

Eligibility for POC/WPA requires that parents be enrolled in school or job training or work a minimum of 35 hours per week. POC/WPA also requires that a family have documents that indicate they are cleared to work in the United States legally.

The Community Based Head Start program offers many of the same services as the school-based Head Start program, including:

- The Community Based Head Start classes follow the same curriculum and meets all of the same federal Head Start program requirements;¹³
- The Community Based Head Start program participants receive the same package of health, nutrition, parent involvement, and other family support services; and
- MCPS psychologists and speech pathologists are similarly available to Head Start students enrolled in the Community Based classrooms.

The major differences between the Community Based Head Start program and school-based Head Start program are that:

- The Community Based Head Start programs operate all day (i.e., 7:00 AM to 6:00 PM) and year round;
- All participating families must meet the federal Head Start income guidelines and be approved to receive a child care subsidy either through the state's Purchase of Care program or the County's Working Parents Assistance program;
- Transportation to the Community Based Head Start program classrooms (located in child care centers) is the responsibility of the parents; and
- The classroom staff of the Community Based Head Start program is employees of the child care center and not MCPS.

Both centers are licensed and regulated by the State's Child Care Administration. The Directors of both community based sites hold advanced degrees in Early Childhood Education. The Head Start classroom teachers at the Silver Spring Presbyterian Church and Silver Spring YMCA hold certifications from the Maryland State Department of Education. All child care center staff meet the State of Maryland's staffing qualifications for child care workers.

An MCPS employee of the Early Childhood Division serves as the Community Based Coordinator. This individual's responsibilities include routine monitoring of the two sites, facilitating the process of applying for and obtaining POC/WPA subsidy, and helping to develop partnerships between the two community based sites and other agencies.¹⁴

¹³ Once a week, "InterAct" comes into the Community Based Head Start classrooms to offer a 30 minute class in art, music, and PE.

¹⁴ The community coordinator position is currently vacant.

Additional Information on Enrollment

From discussions with program staff, OLO understands that throughout the past five school years, actual enrollment of children at the two Community Based Head Start classes has been below total capacity. Community Action Agency staff report that enrollment at each site has “averaged” 12-13 children at each of the two locations. As of October 10, 2002, there are 12 Head Start children enrolled at the Silver Spring Presbyterian Church and 8 Head Start children enrolled at the Silver Spring YMCA; an additional two children are being processed for placement at the YMCA program within the next few weeks.

Program staff offer a number of possible explanations for enrollment being less than capacity at these two sites, including:

- There is a relatively narrow group of families that meet both the federal Head Start income eligibility requirements (income below \$18K for a family of four) and the POC/WPA child care subsidy requirements (both parents working more than 35 hours/week);
- Some of the POC/WPA eligibility requirements (such as legal working documents, requirement to file for child support) deter potentially eligible families from participating;
- The management structure of the program straddles MCPS and DHHS, with the agency in charge of recruitment and enrollment (MCPS) not being the agency responsible for managing the contracts (DHHS); and
- Transportation to the two centers is the responsibility of the parents, which can be difficult for low-income families that do not own a car.

b. “Expansion Head Start” (Community Based Head Start with on-site participation of MCPS teacher and instructional assistant)

Beginning last month, (September 2002), another Head Start model known as “Expansion Head Start” began operating in the County. Expansion Head Start is a full day, school-year program with capacity for 17 federally-eligible Head Start children. The program parallels MCPS’ schedule and will operate 10 months/year.

The single Expansion Head Start site in operation is located in the Peppertree Child Care Center in Germantown. As of October 7, 2002, there were 14 Head Start children enrolled at Peppertree.

The Community Action Agency is currently seeking a second contractor to provide a similar package of services to an additional 17 children at a different child care center. A second RFP was issued on October 6, 2002, with a response deadline of October 18, 2002. CAA's original intent was to have two Expansion Head Start sites up and running by last month; however, according to CAA staff, the first solicitation (issued earlier in the year) did not identify child care centers in the requisite location which met the Head Start Performance Standards for space.

Perhaps the most unique aspect of Expansion Head Start is that program staffing is being provided jointly by employees of the child care center and MCPS. Specifically, during the school year (Sept. through June), one MCPS teacher (.6 FTE) and one MCPS Instructional Assistant (.5 FTE) are providing classroom instruction for 3 hours and 15 minutes, each morning Monday through Friday. For the rest of the time, staff members are employees of the Peppertree Child Care Center, not MCPS.

Other key differences from the two Community Based Head Start sites are that: the Head Start program at Peppertree will operate for 10 months (not 12 months); and all participating families must be approved to receive a child care subsidy through the state Purchase of Care program. (In comparison, the Community Based Head Start sites allow families to receive a child care subsidy from either POC or WPA.)

In other respects, Expansion Head Start is similar to the two Community Based Head Start programs. This includes that CAA is responsible for contract administration and management, and MCPS is responsible for recruitment and eligibility determination of children. In addition, the program operates all day (7:00 AM to 6:00 PM); and transportation to the program is the responsibility of the parents.

OTHER COMPONENTS OF THE COUNTY'S HEAD START PROGRAM

This section briefly describes two other components of the County's Head Start program – a six week summer program and the participation of 30 community children in Head Start classes at New Hampshire Estates Elementary School.

Extended Year (summer) Head Start/Child Care Program

For the past three summers, the State Department of Education has funded what is known as the Extended Year Head Start program. This past summer, 92 children participated in the Extended Year program. Almost all of the students were headed for Kindergarten in the fall, and identified by Head Start classroom teachers as needing to maximize/retain gains made during the school year. There is no cost to the families who participate.

Under the Extended Year program, a four hour Head Start class is provided in the morning and children are enrolled in a licensed child care center program in the afternoon. Children receive both breakfast and lunch and MCPS bus transportation is provided from home/the child care center to school and from school to the child care center sites. The school-based Head Start component of the program is funded by MSDE and the POC/WPA child care subsidy program help to fund the wraparound child care services. All child care fees and/or copays with POC/WPA are paid by the State Head Start grant.

This past summer (2002), the Extended Year Head Start program was offered at eight elementary schools located in mid- and upper-Montgomery County: Washington Grove ES, Georgian Forest ES, Greencastle ES, Dr. Charles Drew ES, Beall ES, Twinbrook ES, S Christa McAuliffe ES, and Fox Chapel ES. These locations were selected because MCPS operated another summer program for children transitioning to Kindergarten in other parts of the County which serve the highest numbers of FARMS-eligible students; in previous summer, the Extended Year Head Start program had been offered in locations throughout the County.

The PreK Program at New Hampshire Estates

The PreK Program at New Hampshire Estates started more than a decade ago as part of the school's efforts to maintain an integrated student body. Under this initiative, NHE enrolls 30 four-year olds, whose families do not have to meet any income eligibility requirements. The students typically live either in or in close proximity to the NHE school boundaries. Recruitment is generally informal and children are accepted by the school on a first-come first-served basis.

The community students attend regular Head Start classes, and are sprinkled throughout the eight Head Start classes offered at NHE. Funding for one of the Head Start classroom staff (one teacher and one IA) is provided through the school's regular budget and not through the Head Start program.

D. Cost of Head Start in Montgomery County

This section is organized as follows:

- Part 1 reviews the respective roles and responsibilities of the County Government and Montgomery County Public Schools with respect to the Head Start program; and
- Part 2 summarizes the FY 03 costs of the Head Start program.

1. Agency Roles and Responsibilities

Head Start is described by agency staff as being “jointly administered” by Montgomery County Public Schools and the County Government. The Community Action Agency (housed within the County’s Department of Health and Human Services¹⁵) is the official “grantee” of federal Head Start funds (approximately \$4 million for the current program year), and MCPS is considered the primary “delegate agency.” The roles and responsibilities of the two agencies with respect to the Head Start program are summarized below.

Montgomery County’s Community Action Agency

CAA and its Board were established in 1965, as the County’s participants in the federal government’s Economic Opportunity Act. Community Action’s mission is to:

Conduct and promote programs that create an awareness of poverty, to promote coordination among agencies and better use of resources, to develop leadership among low-income residents of the County, and to develop community strategies to attack the basic causes of poverty. (Source: Community Action Board, 2001 Annual Report)

The Community Action Board (CAB) consists of approximately 27 members and 13 alternates, appointed by the County Executive and confirmed by the Council. The CAB serves in an advisory capacity to both the County Executive and the County Council, and as an advocate on behalf of low-income citizens of the County. The Board’s responsibilities include: assessing the needs and problems of low-income people in the County and recommending programs that meet the needs and help solve the problems of low income citizens.

As indicated earlier, the Community Action Agency is the designated “grantee” of federal Head Start funds. As the grantee, CAA staff are responsible for the administrative and monitoring tasks connected with applying for, receiving, and reporting on the use of the federal Head Start grant to the Philadelphia regional office of the Head Start Bureau (which is part of the Administration for Children and Families in the federal Department of Health and Human Services.). Successful completion of these contract responsibilities requires CAA to routinely obtain both programmatic and fiscal information from MCPS staff.

CAA serves as the contract manager for the following Head Start related contracts negotiated with child care centers:

- The three contracts for Head Start classrooms not located within a MCPS school. These contracts currently are for 15 Head Start slots at the Silver Spring YMCA, 15 Head Start slots at the Silver Spring Presbyterian Church, and 17 Head Start slots at the Peppertree Child Care Center¹⁶;

¹⁵ Consistent with the County’s Early Childhood initiative, funds for the Head Start program are accounted for in DHHS’ Early Childhood Services area.

¹⁶ As indicated earlier, CAA is currently working to find a second child care center to participate as a Head Start Expansion site.

- The contracts with child care centers for before and after school childcare for 36 Head Start students who attend school-based Head Start classrooms. Last year, this wraparound child care program involved contracts with two child care providers; this year, it is expected to involve contracts with five child care providers.
- The contracts with child care centers for before and after school childcare for the 120 students who participate in Extended Year Head Start. This past summer, Extended Year Head Start was located at eight different school sites; CAA ended up negotiating contracts with 20 child care providers to support before and after child care for the summer program. Over the years, CAA has also assumed responsibility for conducting "Head Start Community Assessments," which federal Head Start Performance Standards require be conducted every three years. The stated purpose of the Community Assessment is to "provide guidance for the Montgomery County Head Start Program and its grantee agency, the Montgomery County Community Action Agency." It involves compiling data on the demographic make-up of Head Start eligible children and families, and a survey to determine the education, health, nutrition, and social service needs of Head Start eligible children and their families.

According to CAA staff, the Community Assessment is not designed as a scientific survey. A description of the most recent Community Assessment process, the methodology used, and summary of conclusions is attached at © 40.

School Health Services and Early Childhood Services

In addition to the Community Action Agency, two other DHHS service areas are directly involved in the administration of the Head Start program. Specifically:

- Staff from the Division of School Health Services (structurally located within DHHS' Children, Youth and Family Services Area) provides the health service component to the Head Start children.
- Staff from DHHS, Early Childhood Services Area consult with MCPS and Community Action Agency staff about a range of issues that impact Head Start families. Early Childhood Services staff offer technical assistance and guidance on working with child care providers as Head Start expands its partnership with the child care community.

Montgomery County Public Schools

Within MCPS, the Division of Early Childhood Services is responsible for administering the school-based Head Start program on a day-to-day basis. In addition to overall program management, staff support from the Division of Early Childhood Services for Head Start includes:

- Teachers;
- Instructional assistants;
- Family Service Workers;
- Instructional specialists;
- Psychologists; and
- Speech pathologists.

The Division is also responsible for administering the Elementary Extended Education Program (EEEP). See cover memo (page 11) for more about EEEP and how it compares to Head Start.

There are other MCPS staff divisions that directly support the daily operation of the Head Start program. These include:

- Transportation services - provides bus transportation to the Head Start children;
- MCPS food services - provides meal service to Head Start children; and
- PE, Art, and Music teachers - provide regular classroom instruction (20 minutes each week) to the Head Start children.

MCPS staff also support the Head Start Policy Council. This Council (required by federal regulations) consists of Head Start *parent representatives from all schools that house one or more Head Start classes.*

2. The FY 03 Head Start Program Budget and Estimates of Additional Head Start Program Costs

Head Start in Montgomery County is funded through a combination of federal, state, and County funds. The total cost of Montgomery County's Head Start program is approximately \$14.6 million. This amount, summarized in Tables 12-14 (© 29), includes:

- **\$10.8 million** –this is the amount budgeted for Head Start within MCPS' Division of Early Childhood Programs, DHHS' Community Action Agency, and School Health Services; and.
- **\$3.8 million** – this is the estimated additional program costs not included in the Head Start program budgets of either agency.

Over the years, agency staff have often referenced the additional program costs not directly in the Head Start budget as “in-kind” contributions to the Head Start program. Because these are actual program costs (largely paid for by County general funds), OLO recommends moving away from the “in-kind” label and instead referencing them more directly as “Estimated Additional Head Start Program Costs.”

The relative support from County, federal, and state funds of Head Start (based on the total \$14.6 million total cost) breaks down as follows:

- \$9.8 million (67%) is from the County;
- \$4.6 million (31%) is from the federal government; and
- \$0.2 million (2%) is from the State.

The rest of this section looks first at the funds allocated explicitly to the Head Start Program budgets of MCPS and DHHS. It then examines in more detail the additional MCPS and County Government contributions to the Head Start program operations.

The Head Start Program Budgets of MCPS and DHHS: \$10.8 million in FY 03

The Council appropriates funds identified explicitly for the Head Start program in both the County Government and in MCPS. Table 12 (© 29) summarizes the amounts and sources of funds for each agency’s Head Start program budget; Table 15 (© 30) and 17-19 (© 32-34) provide greater details for what is covered by the \$9.6 million Head Start budget in MCPS, and the \$1.2 million Head Start budget in County Government. In sum:

\$9.6 million for Head Start is allocated to MCPS’ Division of Early Childhood Services (Table 15 © 30), of which:

- 55% (\$5.3 million) pays for Head Start classroom teachers, instructional assistants and teacher training;
- 15% (\$1.4 million) pays for a team of psychologists, speech pathologists and other teacher specialists assigned to Head Start; and
- 10% (\$1.0 million) pays for a team of social workers and family service workers who organize parent activities and provide family support services to Head Start families.

The remaining 20% (\$1.9 million) pays for the Extended Year Head Start (summer) Program, Management and Administration, and other operating costs for Head Start. It also includes the fringe benefits for MCPS employees paid for with the federal Head Start grant.

\$1.2 million (12%) for Head Start is allocated to the Department of Health and Human Services, of which:

- 50% (\$0.6 million) goes to DHHS' School Health Services (Table 19 © 34), for a team of nurses, health technicians and dental hygienists to provide health services to Head Start students; and
- 50% (\$0.6 million) goes to DHHS' Community Action Agency (Table 18 © 33), to pay for grant management and contracts with child care centers for Head Start related programs. (This includes contracts for Community Based Head Start, Expansion Head Start, and before and after school child care services during the year and during the summer.)

Estimates of Additional Head Start Program Costs in MCPS and DHHS: \$3.8 million in FY 03

In addition to the \$10.8 million budgeted for Head Start, MCPS and DHHS support the Head Start program using resources that do not explicitly show up in the Head Start budget of either agency. Table 13 (© 29) summarizes these additional funds by agency and source for FY 03. Tables 16 (© 31) describes the additional \$3.7 million in Head Start program costs to MCPS and tables 17-19 (© 32-34) describe the additional \$170K in Head Start program costs to the County Government - DHHS. In sum:

MCPS accounts for \$3.7 million of the estimated additional Head Start program costs. This includes:

- \$1.3 million to pay for the benefits of Head Start staff who are paid for with County (not federal) funds;
- \$0.7 million for bus transportation of Head Start children;
- \$0.6 million for classroom space in MCPS schools for Head Start classes;
- \$0.5 million for PE, Music, and Art teachers for Head Start children; and
- \$0.4 million for food services to Head Start children.

DHHS accounts for \$170K of the estimated additional Head Start program costs. This includes:

- \$80K for DHHS-School Health Services additional health services staff time;
- \$80K for grant and contract management from DHHS-Community Action Agency staff time; and
- \$14K for DHHS-Early Childhood Division staff time.

TABLE 12
HEAD START PROGRAM BUDGET - FY 2003

Agency	Source of Funds			Total
	Federal	State	County	
Montgomery County Public Schools*	\$3,019,871	\$141,352	\$6,419,996	\$9,581,219
County Government**	\$1,106,791	\$72,746	\$0	\$1,179,537
Total	\$4,126,662	\$214,098	\$6,419,996	\$10,760,756

*See Table 15 for a detailed list of items included.

** See Tables 17, 18 and 19 for a detailed list of items included.

TABLE 13
ESTIMATE OF ADDITIONAL HEAD START PROGRAM COSTS - FY 2003

Agency	Source of Funds			Total
	Federal	State	County	
Montgomery County Public Schools*	\$426,707	\$22,458	\$3,219,443	\$3,668,608
County Government**	\$40,980	\$0	\$130,533	\$171,513
Total	\$467,687	\$22,458	\$3,349,976	\$3,840,121

*See Table 16 for a detailed list of items included

** See Tables 17, 18, and 19 for a detailed list of items included

TABLE 14
ESTIMATE OF TOTAL HEAD START PROGRAM COSTS - FY 2003
(SUM OF TABLES 12 AND 13)

Agency	Source of Funds			Total
	Federal	State	County	
Montgomery County Public Schools	\$3,446,578	\$163,810	\$9,639,439	\$13,249,827
County Government	\$1,147,771	\$72,746	\$130,533	\$1,351,050
Total	\$4,594,349	\$236,556	\$9,769,972	\$14,600,877

Table 15: Montgomery County Public Schools Head Start Program Budget - FY 2003

Category	Federal Grant PA - 22 (Includes COLA and Quality Improvement)	Federal Grant PA - 20	State	County	Total
1. Personnel Costs					
A. Direct Services to Children					
Teacher	\$1,196,982	\$0	\$0	\$2,373,884	\$3,570,866
Teacher Assistant	\$369,029	\$0	\$0	\$1,125,319	\$1,494,348
Substitutes	\$0	\$0	\$0	\$65,450	\$65,450
Supportive Services Part Time	\$35,136	\$0	\$0	\$46,751	\$81,887
Professional Part Time	\$49,851	\$0	\$0	\$9,630	\$59,481
Stipends-Teacher Training	\$0	\$0	\$0	\$36,800	\$36,800
Consultants	\$0	\$11,500	\$0	\$6,645	\$18,145
Sub-Total	\$1,650,998	\$11,500	\$0	\$3,664,479	\$5,326,977
B. Other Classroom Support					
Other Specialist	\$81,380	\$0	\$0	\$329,975	\$411,355
Technical	\$23,856	\$0	\$0	\$0	\$23,856
Psych/PPW	\$211,201	\$0	\$0	\$0	\$211,201
Psychologist	\$0	\$0	\$0	\$195,716	\$195,716
Speech Pathologist	\$0	\$0	\$0	\$489,590	\$489,590
Teacher Specialist	\$46,255	\$0	\$0	\$0	\$46,255
Assistant Part Time	\$0	\$0	\$0	\$5,318	\$5,318
Sub-Total	\$362,692	\$0	\$0	\$1,020,599	\$1,383,291
C. Family Support/Parent Involvement					
Staff Aide	\$10,124	\$0	\$0	\$0	\$10,124
Substitutes - Supportive Services	\$0	\$0	\$0	\$113,086	\$113,086
Parent Activities	\$0	\$1,839	\$0	\$21,319	\$23,158
School Tuition	\$7,382	\$0	\$0	\$0	\$7,382
Social Worker	\$0	\$0	\$0	\$202,712	\$202,712
Social Service Aides	\$107,659	\$0	\$0	\$576,738	\$684,397
Consultants	\$0	\$3,500	\$0	\$5,000	\$8,500
Sub-Total	\$125,165	\$5,339	\$0	\$918,855	\$1,049,359
D. Management and Administration					
Coordinator	\$0	\$0	\$0	\$103,623	\$103,623
Secretarial	\$0	\$0	\$0	\$43,871	\$43,871
Registrars/Financial Sec.	\$0	\$0	\$0	\$24,936	\$24,936
Clerical	\$0	\$0	\$0	\$97,335	\$97,335
Data Control	\$0	\$0	\$0	\$53,316	\$53,316
SSE	\$0	\$0	\$0	\$4,560	\$4,560
Accountant	\$0	\$0	\$0	\$68,804	\$68,804
Contractual Maintenance	\$0	\$0	\$0	\$8,676	\$8,676
Office Assistant IV	\$0	\$0	\$0	\$32,220	\$32,220
Consultants	\$0	\$0	\$0	\$11,500	\$11,500
Sub-Total	\$0	\$0	\$0	\$448,841	\$448,841
E. Fringe Benefits (Federal)					
Federal Employees	\$742,654	\$0	\$0	\$0	\$742,654
Sub-Total	\$742,654	\$0	\$0	\$0	\$742,654
2. Operating Costs					
Audit	\$3,778	\$0	\$0	\$0	\$3,778
Instructional Supplies	\$57,361	\$34,988	\$0	\$102,417	\$194,766
Instructional Supplies - Other	\$0	\$0	\$0	\$3,550	\$3,550
Office	\$0	\$0	\$0	\$13,839	\$13,839
Food	\$350	\$0	\$0	\$143,861	\$144,211
Travel Local	\$0	\$0	\$0	\$30,736	\$30,736
Travel Out	\$0	\$9,996	\$0	\$0	\$9,996
Dues, Registration, Fees	\$4,000	\$0	\$0	\$8,229	\$12,229
Instructional Equipment Replacemen	\$6,000	\$0	\$0	\$38,783	\$44,783
Field Trips	\$3,950	\$0	\$0	\$24,307	\$28,257
Other Insurance	\$1,100	\$0	\$0	\$1,500	\$2,600
Sub-Total	\$76,539	\$44,984	\$0	\$367,222	\$488,745
3. Extended Year Head Start					
Personnell and Operating Costs	\$0	\$0	\$141,352	\$0	\$0
Sub-Total	\$0	\$0	\$141,352	\$0	\$141,352
Total	\$2,958,048	\$61,823	\$141,352	\$6,419,996	\$9,581,219

TABLE 16
MCPS ESTIMATE OF ADDITIONAL HEAD START PROGRAM COSTS - FY 2003

Cost Item	Source of Funds			Total
	Federal	State	County	
Employee Benefits for staff not paid for by Federal Grant	\$0	\$0	\$1,306,611	\$1,306,611
Transportation*	\$0	\$0	\$735,949	\$735,949
Classroom Space***	\$0	\$0	\$657,600	\$657,600
PE, Art, and Music**	\$0	\$0	\$487,730	\$487,730
Additional Personnel Costs in Early Childhood Division	\$0	\$0	\$31,553	\$31,553
Food – Meal Service	\$426,707	\$22,458****	\$0	\$0
TOTAL	\$426,707	\$22,458	\$3,219,443	\$3,668,608

*Cost of bus transportation to and from school.

**This represents time of physical education, art, and music teachers spent with Head Start students.

*** According to MCPS staff, the first year cost of placing a relocatable classroom at a school site is \$46,500 and the cost of the relocatables for the second through fifth years is \$5,500 per year. The number on this table estimates the cost of Head Start classroom space during FY 03 by multiplying the five-year annual average cost (\$13,700) of placing a relocatable at a school site by the 48 Head Start classrooms located in schools that have relocatables during the 2002-2003 school year.

****State of Maryland pays .05 cents of free and reduced meals to Head Start children.

TABLE 17
DHHS EARLY CHILDHOOD BUDGETED AND ESTIMATE OF ADDITIONAL HEAD START
PROGRAM COSTS - FY 2003

Cost Item	Source of Funds			Total
	Federal	State	County	
BUDGETED	\$0	\$0	\$0	\$0
ESTIMATE OF ADDITIONAL HEAD START PROGRAM COSTS				
Chief	\$0	\$0	\$2,839	\$2,839
Manager III	\$0	\$0	\$3,164	\$3,164
Program Manager I	\$0	\$0	\$4,001	\$4,001
Management and Budget Specialist III	\$0	\$0	\$4,448	\$4,448
Total	\$0	\$0	\$14,452	\$14,452

TABLE 18
DHHS COMMUNITY ACTION AGENCY (CAA) BUDGETED AND ESTIMATE OF ADDITIONAL
HEAD START PROGRAM COSTS - FY 2003

Cost Item	Source of Funds			Total
	Federal	State	County	
BUDGETED				
Head Start Coordinator	\$20,006	\$0	\$0	\$20,006
Contract with Silver Spring Presbyterian Church	\$97,820	\$0	\$0	\$97,820
Contract with Silver Spring YMCA	\$91,967	\$0	\$0	\$91,967
Contract with Child Care providers for Wrap Around Child Care in Twinbrook area (Optimum & TBD)	\$187,255	\$0	\$0	\$187,255
Contract with Child Care providers for Wrap Around Child Care Expansion (Peppertree & TBD)	\$41,662	\$0	\$0	\$41,662
Support Staff Positions	\$34,420	\$0	\$0	\$34,420
SSPCC Teachers Education	\$12,500	\$0	\$0	\$12,500
YMCA Teachers Education	\$12,500	\$0	\$0	\$12,500
CAA Misc.	\$10,213	\$0	\$0	\$10,213
Summer Child Care Contracts	\$0	\$68,746	\$0	\$68,746
ESTIMATE OF ADDITIONAL HEAD START PROGRAM COSTS				
Executive Director	\$15,750	\$0	\$9,250	\$9,250
Head Start Program Coordinator	\$20,400	\$0	\$9,602	\$9,602
Program Manager I	\$0	\$0	\$17,900	\$17,900
Office Service Coordinator	\$4,830	\$0	\$2,840	\$2,840
Total	\$549,323	\$68,746	\$39,592	\$657,661

TABLE 19
DHHS SCHOOL HEALTH SERVICES BUDGETED AND ESTIMATE OF ADDITIONAL HEAD START
PROGRAM COSTS - FY 2003

Cost Item	Source of Funds			Total
	Federal	State	County	
BUDGETED				
Full Time Salary	\$171,454	\$0	\$0	\$171,454
Part Time Salary	\$103,976	\$0	\$0	\$103,976
Social Security	\$20,607	\$0	\$0	\$20,607
Insurance	\$24,033	\$0	\$0	\$24,033
Workers Compensation	\$5,508	\$0	\$0	\$5,508
Retirement	\$23,143	\$0	\$0	\$23,143
Dental Services	\$46,894	\$0	\$0	\$46,894
Professional Other (Hygienists)	\$36,627	\$0	\$0	\$36,627
Professional Purchase of Service (Mobile Med)	\$115,000	\$0	\$0	\$115,000
Central Duplicating	\$1,000	\$0	\$0	\$1,000
Metro Area Travel	\$2,100	\$0	\$0	\$2,100
Professional Training	\$1,500	\$0	\$0	\$1,500
Other Educational Training/Parents	\$10,000	\$0	\$0	\$10,000
Office Supplies	\$2,000	\$0	\$0	\$2,000
Computer Equipment	\$1,900	\$0	\$0	\$1,900
Dental Supplies	\$7,500	\$0	\$0	\$7,500
Medical Equipment/Supplies	\$5,000	\$0	\$0	\$5,000
Uniforms	\$400	\$0	\$0	\$400
Misc. Operating	\$500	\$0	\$0	\$500
Extended Year Head Start (Summer)	\$0	\$4,000	\$0	\$4,000
Additional Quality Improvement	\$19,305	\$0	\$0	\$19,305
ESTIMATE OF ADDITIONAL HEAD START PROGRAM COSTS				
Part Time Salary	\$0	\$0	\$56,602	\$56,602
Social Security	\$0	\$0	\$4,127	\$4,127
Insurance	\$0	\$0	\$7,226	\$7,226
Workers Compensation	\$0	\$0	\$1,132	\$1,132
Retirement	\$0	\$0	\$7,402	\$7,402
Total	\$598,447	\$4,000	\$76,489	\$678,936

HEAD START INCOME GUIDELINES

School Year 2002 - 2003

Category I		Category II Montgomery County Guidelines				Category III
United States Department of Health and Human Services Family Income Guidelines		A	B	C	D	Special Cases
Family Size	Poverty Level	PL+ 3770	PL+ 5625	PL+ 8415	PL+ 12596	Category IIC+50%
1	\$ 8,860	\$ 12,630	\$ 14,485	\$ 17,275	\$ 21,456	\$ 25,913
2	11,940	15,710	17,565	20,355	24,536	30,533
3	15,020	18,790	20,645	23,435	27,616	35,153
4	18,100	21,870	23,725	26,515	30,696	39,773
5	21,180	24,950	26,805	29,595	33,776	44,393
6	24,260	28,030	29,885	32,675	36,856	49,013
7	27,340	31,110	32,965	35,755	39,936	53,633
8	30,420	34,190	36,045	38,835	43,016	58,253
9	33,500	37,270	39,125	41,915	46,096	62,873
10	36,580	40,350	42,205	44,995	49,176	67,493
Add \$3,080 for each additional family member.						

HEAD START RECRUITMENT OUTREACH ACTIVITIES – 2002-2003

Media Announcements

Media announcements through MCPS Office of Information

1. Montgomery Cable TV
2. Local Radio Stations
3. Local Newspapers

Head Start Off-Site Registrations

Fully staffed off-site Head Start registrations (9 in total)

1. Long Branch Community Center 3/22 & 4/12/02
2. East County Community Center 3/25/02
3. Lincoln Park Community Center 4/9/02
4. Up County Government Center 4/19/02
5. Upper County Community Center 4/26 & 5/3/02
6. Rocking Horse Road Center 3/11 & 13/2—ongoing daily (M-TH) from 3/4/02

MCPS Kindergarten Registrations

Family Service Workers will attend kindergarten orientations at their assigned Head Start schools and provide Head Start/EEEP registration information and referral. At both Summit Hall and Rosemont Elementary Schools, targeted efforts will be made to recruit eligible families for both Head Start and EEEP in order to facilitate enrollment into the Judy Center program. These sites will host an additional day of registration in addition to the two days of kindergarten orientation for each site. The Head Start application will be completed for all families interested in both Head Start and EEEP in order to facilitate determining eligibility for child care subsidy programs. A representative from the Child Care Subsidy Office will attend all off-site registrations, as well as the on-site registrations at Summit Hall and Rosemont Elementary Schools.

Contacts Within HHS Child Welfare

Sent community partnership letters to the following program managers requesting that Head Start/EEEP posters and registration site location information be distributed to these local offices and included in the Child Welfare newsletters:

TANF

- Registration materials provided to Felicia Turner, HHS Manager of Income Maintenance
- A targeted Head Start flyer will go to all County TCA recipients (w/children aged 0-5) informing them of Head Start registration (coordinated with Beth Molesworth & Joanne Barnes)

Foster Care

Head Start registration presentation to the next group of new foster care parents – coordinated through Angela Tecundi and Shirley Scripner, foster care supervisors

Protective Services

Emergency Services

Head Start Parent Ambassadors

Head Start parents are being recruited and trained to do recruitment outreach at the following community sites and at community activities:

1. Montgomery County Community Services Center
2. Month of the Young Child at Lakeforest Mall and Wheaton Plaza
3. Community Health Fairs
4. Multilingual Early Childhood Education/Child Care Fairs (Gilchrist Center for Cultural Diversity)

Early Head Start Programs

MCPS Head Start staff on site at both Family Services of Montgomery County, Gaithersburg, MD and the Metropolitan Consortium of Early Head Start referrals to MCPS Head Start to register Early Head Start families.

Distribution of Head Start/EEEP Registration Posters and Flyers

1. MCPS Elementary Schools
2. Montgomery County Libraries
3. Clothing Centers
4. Women, Infant and Children (WIC)
5. Housing Opportunity Commission
6. Section 8 Landlords
7. Child Care Centers
8. MCPS Child Find
9. MCPS Infants and Toddlers
10. Amigo Programs
11. Linkages to Learning
12. Health Families of Montgomery County
13. Community Ministries of Montgomery County
14. Maryland Cooperative Extension Services
15. Manna Food Center
16. Crossway Community
17. MCPS Rocking Horse Road Center Programs
18. CASA of Maryland
19. Spanish Catholic Centers
20. TESS Community Center

Head Start staff form partnerships with community agencies. Parents are linked to support services to assist with such challenges as employment, housing, food, clothing, family literacy, and freedom from domestic violence and substance abuse. To facilitate coordination of services and avoid duplication between Head Start and community agencies, families are encouraged to complete an agreement.

Health and Nutrition Services

Head Start provides health information that supports wellness and positive lifestyle choices. The Head Start team works collaboratively with families and health professionals to ensure that all child health and developmental concerns are identified and treated through health screenings. Families are assisted in accessing a source of continuous care to meet their basic health needs.

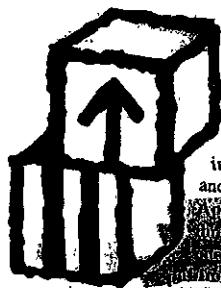
Family-style lunches are served in Head Start each day. Cooking and tasting activities give children opportunities to try new foods and to establish good eating habits. Head Start staff offer instruction on food groups and balanced, nutritional meals.

Disabilities Services

Head Start classes include children with disabilities along with typically developing children. The special needs of all children are handled by a professional staff of nurses, psychologists, speech pathologists, teachers, and MCPS related service staff. Mainstreaming opportunities are available in other MCPS preschool programs.



1119.00 W 4/30/2000



Montgomery County Head Start is a program for income-eligible families and their preschool children.

Funded by both local and federal money, the Head Start Program provides education, parent involvement, health, and nutrition services. At least ten percent of Head Start enrollment includes children with disabilities. Special services are provided to address each child's unique needs. The Montgomery County Community Action Agency is the grantee.



Classes operate approximately three hours each weekday during the school year. The program follows the Montgomery County Public Schools schedule.

Program Design and Management

The delivery of high quality services is the joint responsibility of the grantee, Community Action Agency Board of Directors; parents and community members on the Policy Council; and the Head Start staff management team. Shared decision-making is accomplished by:

- Reviewing the program's recruitment, selection, and enrollment procedures
- Participating in the annual program self-assessment, as well as the federal review every three years
- Approving the annual budget
- Maintaining membership on personnel interview teams
- Offering employment in the program to qualified Head Start parents
- Ensuring two-way communication
- Providing accurate record-keeping and financial reporting systems
- Designing, implementing, and evaluating written short and long-range plans
- Completing a Community Assessment to better serve the entire family
- Providing training opportunities for staff and families
- Ensuring a safe, nurturing environment that accommodates unique family needs, e.g., language, culture, disabilities

Office of Instruction and Program Development

Department of Curriculum & Instruction
Division of Early Childhood Services
Head Start Unit
301-230-0676

Early Childhood Development

The Head Start program engages children in activities to nurture their social, emotional, intellectual, linguistic, and physical development. In each classroom a teacher, instructional assistant, and parent volunteers provide children with opportunities to:

- Talk, listen, and converse together
- Enjoy listening to and dramatizing stories
- Develop small and large muscles
- Paint, draw, and create
- Explore science material
- Measure, count, and classify
- Recognize names, colors, shapes, numbers, and letters
- Solve problems
- Take part in dramatic play
- Dance, sing, and make music
- Work puzzles and build with blocks
- Learn to share and cooperate
- Enjoy field trips and multicultural activities

Parents and community volunteers help in the classroom, offering children the assistance that supports their success and self-confidence.



A Program for Pre-Kindergarten Children and Their Families

Head Start: Making a Difference
Montgomery County Public Schools
Rockville, Maryland



Parent Involvement

Parents are a very important part of Head Start. Involvement in their children's education assists parents in learning about the school system and in showing their children that learning is important. Children gain more from the instructional program when their parents are involved.

Parents participate in these ways:

- Make program decisions through Policy Council participation
- Work in the classroom as volunteers or paid instructional assistants
- Help at home by reinforcing what children learn in school
- Develop or enhance job skills to increase their ability to manage their families

Family and Community Partnerships

The Head Start Program requires that each federally eligible family jointly develop a Family Partnership Agreement (FPA) with a designated Head Start staff person. The FPA is a process for determining family strengths and needs, and assisting families in achieving their personal goals.

Department of Enriched and Innovative Programs
Division of Early Childhood Programs and Services
Head Start/EEEP Unit
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

Family Partnership Agreement

Child's Name: _____ Class: _____ Date: _____

Family Members: _____
interviewee

Is either parent/guardian currently in school/training? What is their course of study? _____

Is either parent/guardian currently employed? What type of work? What hours? _____

If not currently working, what past work experience do you have? _____

Is your family currently receiving any of these services?

____ Food Stamps ____ Medical Assistance ____ SSI ____ Unemployment

____ TCA ____ WIC ____ HOC/Rental Assistance

____ Child Support/Alimony ____ Foster Care Subsidy

____ Other: _____

____ When do you expect benefits to end? _____

Is your family participating in any other comprehensive program?

____ Early Head Start ____ Healthy Families Montgomery ____ Infants & Toddlers

____ Super Help ____ Family Self-Sufficiency

Other: _____

Does your family have a service agreement or a worker with another agency? Please explain.

7. Are there community resources that your family uses? (church, community organizations)

8. Are there any health concerns for the members of you family? _____

Do you have access to health care? _____

9. Head Start encourages parents and family members to visit the school and participate in your child education. How can we make this volunteer experience a positive one so that you can make a commitment to participate? _____

10. What language(s) do you speak at home? _____

What language(s) do you read? _____

11. What do you or your family members do well? What makes your family special? _____

12. Are you interested in any information regarding:

____ Health (family planning, Immunizations, Medical Assistance, CHIPs, pregnancy, etc)

____ Education services (literacy, GED, English, college, etc)

____ Mental Health (depression, substance abuse, alcoholism, domestic violence, etc.)

____ Child Care (subsidies, providers, etc.)

____ Legal (child support, immigration, guardianship, custody, etc.)

____ Other: Please specify) _____

II. THE COMMUNITY ASSESSMENT PROCESS

This 2001 Community Assessment is designed to provide guidance for the Montgomery County Head Start Program and its grantee agency, the Montgomery County Community Action Agency. Through this assessment process, the Head Start Program, can determine the types of services that best meet the needs of the Head Start eligible community in the service area – young children and their families. This assessment will be used to help define the vision of long-range and short-range goals and objectives for the Community Action Agency, the grantee, and the Head Start Program itself. It will help to determine the services that are most needed and the critical areas of the county for Head Start recruitment. Given the number of eligible families in Montgomery County, and the limited resources available to meet their needs, this assessment helps the Head Start Program set *priorities* for recruitment of the most needy children in the county.

The community assessment process requires that the demographic make-up of Head Start eligible children and families, including their estimated number, geographic location, and racial and ethnic composition be collected, as well as information concerning other Montgomery County child development and child care programs that serve Head Start eligible children, including state and local funded preschool programs. This community assessment sought to provide information about the number of children with disabilities four years old or younger, including types of disabilities and services and resources provided to these children by the various Montgomery County agencies. Through a community survey, data was collected to determine the education, health, nutrition and social service needs of Head Start eligible children and their families *as defined by families of Head Start eligible children and by institutions in the community that serve young children*. Finally, this community assessment provides information on the range of community resources for meeting the needs of Head Start eligible children and their families, including assessments of their availability and accessibility.

The Head Start Program is committed to serving children and their families who are deemed eligible under the Federal Poverty Guidelines published by the Federal Office of Management and Budget (OMB). The Family Income Guidelines published in the Federal Register reflect revised poverty data and determine Head Start eligibility for low-income families; these federal guidelines limit income for a family of four to \$17,050 in 2000 and \$17,650 in 2001.

The Montgomery County Community Action Board (CAB) which directs the development of operational policy of the Community Action Agency for Montgomery County, found this measure of low-income status inadequate to meet the needs of the county residents because of the generally high overall income levels of households.

The median household income in Montgomery County was \$66,085 in the 1997 US Census Updated Survey report. The Community Action Board has for many years developed a Minimum Standard of Need for Montgomery County (MSON). During its 2000 planning process, the CAB adopted The self-sufficiency Standard for the Washington DC Metropolitan Areas prepared for Wider Opportunities for Women (WOW) in cooperation with local area governments. This standard calculates the amount a family would need to live in Montgomery County at a basic needs level, incorporating *actual* regional and local cost variations, net effect of taxes and tax credits, and costs associated with employment. The amount based on the standard needs for a family of four would be \$49,668 per year, or \$23.52 total per hour wages.

Based on this data, the self-sufficiency standard for Montgomery County, the Head Start Program in Montgomery County has established local county guidelines for eligibility in Head Start. After all federally Head Start eligible families have been placed, in 2001-2002, Montgomery County would offer services to a family of four with an income of \$30,040 or less.

During program year 2000, funding from federal and local sources provided the Head Start Program for approximately 1,700 three and four year olds in 100 classes in public school facilities and in two community-based sites.

III. METHODOLOGY

The 2001 Head Start Community Assessment has been prepared based on local guidelines prepared by a committee formed by the Montgomery County Community Action Agency (MCCAA). This committee represented members of the Montgomery County Community Action Board (CAB), the Head Start Program, the Early Head Start Program, the Head Start Policy Council, the Montgomery County Public Schools (MCPS), and other local social service agencies. A listing of the Assessment Committee membership is included in the Appendices. MCCAA staff was delegated to plan, organize and provide leadership for the 2001 Community Assessment.

The local assessment committee determined that the data necessary to describe the needs and characteristics of the Head Start eligible children and their families in Montgomery County would be obtained through several sources, including a survey administered at Head Start centers and other county service centers. That group developed a survey instrument; a copy of the survey instrument is included in the Appendices. Other data was collected from among the various Montgomery County sources such as the Montgomery County Public Schools, the Community Action Agency, the Department of Health and Human Services, the Montgomery County Planning Board (Maryland National Capital Park and Planning Commission, Montgomery County Department of Park & Planning), and the Montgomery County Early Childhood Initiative. Compilation, analysis of the data, and report preparation were accomplished with the services of a consultant analyst and writer.

The 2001 Community Assessment Survey attempted to gather the critical information about the Montgomery County's low-income population, and services available to meet their children's needs. Collecting and analyzing data about the program was guided by the Montgomery County Community Action Agency's Assessment Committee, consisting of members from the community involved in providing the services. A survey was conducted among Head Start eligible and other county family residents who access Montgomery County education, health, and other human services.

The survey was administered at a variety of sites, seeking information from as wide a pool of social services users and parents with young children as possible. Because of language diversity issues, Montgomery County Community Action Agency and other agency staff were available to assist persons in completing the form, which was entirely voluntary. The sites chosen were multipurpose centers where residents could seek any of the services typically needed by Head Start eligible families. Often people were too busy with other matters at the sites to take the extra time to complete the form. Even with Spanish-speaking and Vietnamese-speaking aides available, some people were unwilling to take the time to complete the form. Despite this, approximately 300 useable surveys were returned to the Community Action Agency.

Ninety-two percent of the persons who completed the survey had children five years of age or younger and 89.7% of the survey respondents had children four years old or

younger who were either enrolled in Head Start, or some other preschool program, or licensed child care centers, licensed family child care providers, or being cared for informally by relatives, friends or neighbors.

The modal respondent to the 2001 Community Assessment Survey was a female, either a full time employed single head of household or an unemployed worker, with one Head Start child, age 3-5, an apartment dweller in Silver Spring or Gaithersburg, ages 26-30, and probably Latina or African American.

IX. CONCLUSION: GAPS IN SERVICES FOR HEAD START CHILDREN AND THEIR FAMILIES

The increasing numbers of births and in-migrants in Montgomery County, Maryland, indicate that demands on child care and necessary services for families will continue to increase. Despite the wide array of services in Montgomery County, the burgeoning population growth, especially among Latino/a and other immigrant families may cause a shortage of Head Start spaces in the future. The demands for language assistance will prove expensive and difficult, especially for groups that seem insufficiently large enough to warrant hiring bilingual staff. The Chinese, Vietnamese, and Ethiopian populations are noted as growing ethnic/language groups. A more finely tuned assessment of their potential demand for Head Start and other early childhood services is warranted.

The rising cost of living in Montgomery County has led to serious economic issues for families. The expanding housing supply in the up-county area does seem to suggest that that area will continue to be a high growth area. The existing programs may prove insufficient if growth continues, through both birthrate and continued in-migration.

This review of Montgomery Head Start Programs and services shows clearly that there is much strength apparent in the current pattern of operation. The wisdom of the longstanding partnership with the Montgomery County Public Schools is underscored in that the public schools are dealing with the same problems in the higher grades and are well prepared to assist in the anticipation of service needs and may be useful in offering additional English as a Second Language and bilingual staff.

The 2001 Head Start Community Assessment Survey revealed a number of pressing issues for Montgomery County, underscoring the importance of the Head Start Program for improving the quality of education and life for low-income children and their families.

- 23% of the survey respondents were below the federal poverty level for household income, highlighting the great need for services. Over 36% *additional* respondents were below the locally determined household poverty level.
- 42.9% of the survey respondents were Latinos, 33.8% were African Americans and resident Africans, 12.7% were Asian Americans and resident Asians, and 8 % were White Americans.
- 51% of the survey respondents lived in apartments; 10% lived in shared housing and 5 % were homeless
- The majority of the respondents were under age 30, indicating the importance of family services and parenting education.

- While 72% of males in the survey respondent's households were employed full time, 22% were part time workers or unemployed.
- Only 38% of the females in the survey respondent's households were employed full time; 43% were unemployed and 15% were employed part-time.
- 48.3% of the survey respondents had Medicaid as the health coverage for their children between 0 and 4 years of age; 4% had no coverage.
- 34% of the female parents covered in the survey were not high school graduates; 30% had only a high school education.
- 37% of the male parents in the survey were not high school graduates; an additional 22% had only a high school education.
- Affordable housing (21.5%), job training (19.6%) and before and after school child care (18.8%) were the most pressing service needs of the survey respondents.
- Other important unmet needs included employment (14%), transportation to get to work (11.7%), and parenting skills and support (7.3%).
- 34% of the survey respondents had children in Head Start and an additional 19.9% had children in other preschool programs.

Despite its utility and success, demonstrated through the national studies of the efficacy of the Head Start approach to early childhood need of low income children and their families, there are unmet needs for Head Start services in Montgomery County, Maryland. As the number of births continues to keep the under-five population steadily increasing, and the impact of the immigrant families various and special needs, the gaps between what is available with existing resources and what is necessary for the best services widens. The estimated number of children serviced, approximately 1,700, constitute a very small number of the number of children in the county.

See the Appendix for Maps of Head Start offices, centers and school based locations, as well as the targeted recruitment areas. The densest population areas of the county have the highest concentrations of lower income families. These are both in the up-county and the south county areas. Additional services should be provided as new funding becomes available in these areas of higher service needs.

Division of Early Childhood Programs and Services
Head Start/EEEP Unit
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

EXTENDED ELEMENTARY EDUCATION PROGRAM
WAIT LIST - STUDENT ELIGIBILITY APPLICATION

INSTRUCTIONS: The parent/guardian of the student is to complete Section I and send the form to Head Start/EEEP Unit, Rocking Horse Road Center, 4910 Macon Road, Room 141, Rockville, Maryland 20852.

SECTION I
STUDENT INFORMATION

Student: _____ Birth Date: _____ Sex: ☐ M ☐ F
Last First MI

Home school: _____ Requested schools: 1 _____ 2 _____ 3 _____
(In-Area) (Out-of-Area ONLY)

Please select the criteria that apply to your child. Attach documentation or write a statement to support the selected criterion.

- ☐ **Limited English Proficient (LEP)** (a child who is born outside of the United States, or comes from an environment where a language other than English is dominant)
- ☐ **Homeless** (a child who is eligible to attend Maryland public schools and who lacks a fixed, regular, or adequate nighttime dwelling place)
- ☐ **Prior Participation in Head Start or Even Start Program** (a family with a pre-Kindergarten eligible child who participated in a Head Start or Even Start family literacy program at anytime in the two preceding years)
- Name of program: _____ Location: _____
- ☐ **Referral** (written referral from other MCPS units such as Child Find, Head Start, early intervention program, and other county agencies)
- ☐ **Emergency and Health Situation** (health and medical risks that may impair a child's development such as hospitalization and chronic illness of parent/guardian, child's birth weight less than 6 lbs. etc.) *Complete enclosed Emergency/Health Situations Criterion Form.*
- ☐ **Home and Family Circumstances** (circumstances that place a child at risk for having developmental delays and/or learning problems such as the death of a parent, child in foster care, child of parent(s) who are incarcerated, child of parent(s) who may be adolescents completing high school, etc.)
- ☐ **None of the above**

I HAVE READ THE INFORMATION ON THIS FORM AND ATTACHED ARE THE REQUESTED DOCUMENTS. I UNDERSTAND THAT IF I AM REQUESTING AN OUT-OF-AREA SCHOOL, IT WILL BE FOR ONE YEAR ONLY, AND THAT I WILL HAVE TO PROVIDE TRANSPORTATION FOR MY CHILD TO AND FROM THE ASSIGNED SCHOOL.

Signature Parent/Guardian

Date

Section II:

Form received in the Head Start/EEEP Unit by: _____
NAME DATE

COMPARATIVE INFORMATION

Head Start programs across the country vary significantly, both in terms of basic structure and the range of services provided. As a result, it is difficult to describe the characteristics of a prototypical Head Start program.

The most recent comprehensive nationwide study of Head Start program characteristics was completed by the federal General Accounting Office (GAO) in 1998. Among other things, the GAO found that:

- The annual cost per child for Head Start ranges from \$1,081 to \$17,029, with a national average of \$5,186 per child.
- The number of children in Head Start programs ranges from 17 to 6,045, with a national average of 454 children.
- Different entities administer Head Start across the country; 35% of providers are local Community Action Agencies; 28% are private, non-profit organizations; and 19% are public school districts.
- Head Start is delivered in a wide range of facilities, including public schools (29%), other government buildings (24%), religious facilities (21%), private space (21%), and other facilities (5%).

Although the sources of funding for Head Start programs vary significantly, the GAO found that a majority of programs nationwide receive between 80-100% of total program funding from their federal Head Start grant. GAO's data showed that only 2% of total nationwide Head Start program funding came from "other nonfederal" sources, which would include local governments.

Another source of comparative Head Start information comes from data submitted annually to the federal Head Start program office. Federal Head Start regulations require every Head Start grantee/delegate agency to complete a PIR (Program Information Report) on an annual basis. The PIR solicits information on many aspects of Head Start program operations that are supported by federal Head Start funds. A private firm (Xtria), under contract to the federal Head Start program office, maintains a data base of all PIR responses.

The attached tables beginning at © 50 compare selected PIR data submitted in 2001 by Montgomery County's Head Start program to comparable PIR data submitted in 2001 by other Head Start grantees in Maryland and across the country. The County data are limited to information from the approximately 800 federally eligible Head Start families. This cohort represents about half of all of the children enrolled in the County's Head Start program. OLO compiled these tables with assistance received directly from Xtria.

Comparative Observations

While it is difficult to compare Montgomery County's Head Start program to the "typical" Head Start program, using information from the 1998 GAO report and data from the PIR, some comparative observations are still possible:

- **Type of service provider** – Over 80% of the Head Start providers across the country are non-governmental organizations. In contrast, Montgomery County provides Head Start through a government based community action agency and the local school district.
- **Program facilities** –Head Start centers across the country typically are not located in school buildings. Most are in religious facilities (21%), private space (21%), or other government buildings (24%). In Montgomery County, 96% of the classes are in elementary schools.
- **Teacher credentials** – Approximately 75% of the Head Start teachers across the country have an associates degree or a child care certificate. In Montgomery County, 93% of Montgomery County Head Start teachers have a BA or Masters' degree in early childhood or a related field. (See Table 20.)
- **Program eligibility** – Most Head Start programs across the country only serve children living in families with incomes below the federal poverty guidelines. In contrast, Montgomery County is among a minority of programs that serves non-federally eligible children. Approximately half of the 1,700 children in the County's Head Start program meet the higher income guidelines established by the County.
- **Age of children enrolled** – Nationally, Head Start serves a mix of three and four-year olds; specifically 57% of the children enrolled in Head Start are four-years old, and 43% are three years or younger. In Montgomery County, 86% of the federally-eligible children enrolled in the County's Head Start program are four-year olds and 14% are three-year olds. (See Table 22.)
- **Dominant language of children enrolled** – Nationally, the languages of Head Start children are English (74%), Spanish (22%) and other – Asian and Native American (4%). For the federally-eligible children enrolled in Montgomery County's Head Start program, 31% report Spanish as their dominant language and 10% report an Asian language as their dominant language. (See Table 21.)
- **Program length** – Since welfare changes were enacted in 1996, Head Start has encouraged the provision of full day, full year care. Full day programs are provided to 39% of Head Start children nationally and 36% of Head Start children statewide. In Montgomery County, 4% of the children are enrolled in full day care. (See Table 23.)

- **Coverage of program costs by the federal Head Start grant** – Nationally, federal funding pays for four-fifths of the Head Start program costs. In Montgomery County, the federal Head Start grant covers less than one-third of total program costs.
- **Employed head of household** -About half (52%) of the federally-eligible children enrolled in Montgomery County Head Start come from families with a full-time employed head of household. This is similar to state and national data, where the comparable numbers are 58% and 54% respectively. (See Table 24.)
- **Stated need for full day child care** - The percent of federally-eligible Head Start families that report needing full-day full-year child care is comparatively lower in Montgomery County. Statewide 60% and nationally 49% of families state that they need full day care compared to 31% of families in the County. (See Table 25.)

TABLE 20
HEAD START TEACHER QUALIFICATIONS

Classroom/Child Development Staff Qualifications	Montgomery County N=45	Maryland N=395	National N=40,288
Graduate Degree in Early Childhood Education or Related Field	51%	10%	4%
Baccalaureate Degree in Early Childhood Education or Related Field	42%	29%	21%
Child Development Associate Credential or State Certificate	4%	31%	45%
Associates Degree in Early Childhood Education or Related Field	2%	14%	21%
Degree in family/child studies or related field	0%	8%	4%
Staff in Child Development Associate Training	0%	7%	6%
Total	100%	100%	100%

Source: National, Maryland, and Montgomery County 2000-2001 Program Information Report (PIR) Data (Obtained from Xtria-LLC).

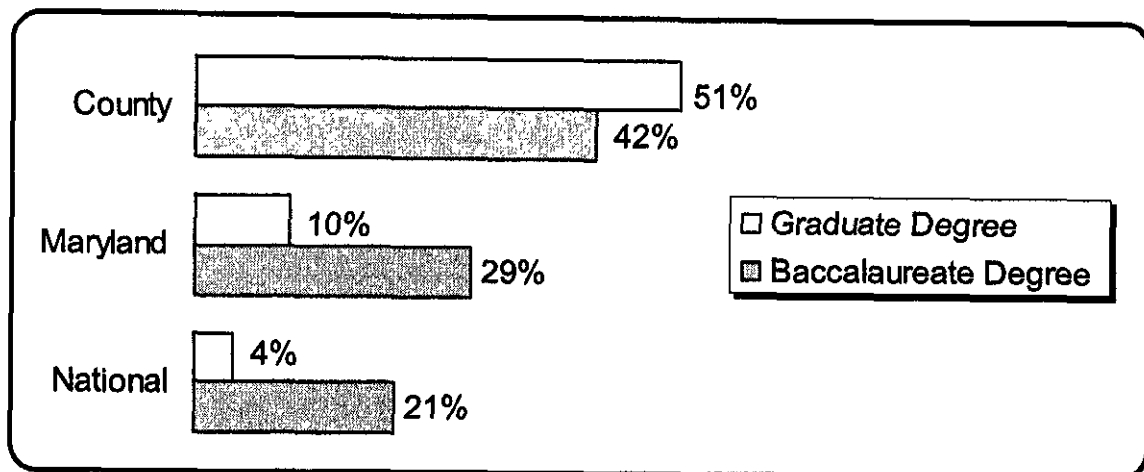


TABLE 21
DOMINANT LANGUAGE OF HEAD START STUDENTS

Dominant Language	Montgomery County N=800	Maryland N=9,768	National N=898,202
English	57%	93%	74%
Spanish	31%	5%	22%
Other Native American and Asian Languages	12%	2%	4%
Total	100%	100%	100%

Source: National, Maryland, and Montgomery County 2000-2001 Program Information Report (PIR) Data (Obtained from Xtria-LLC).

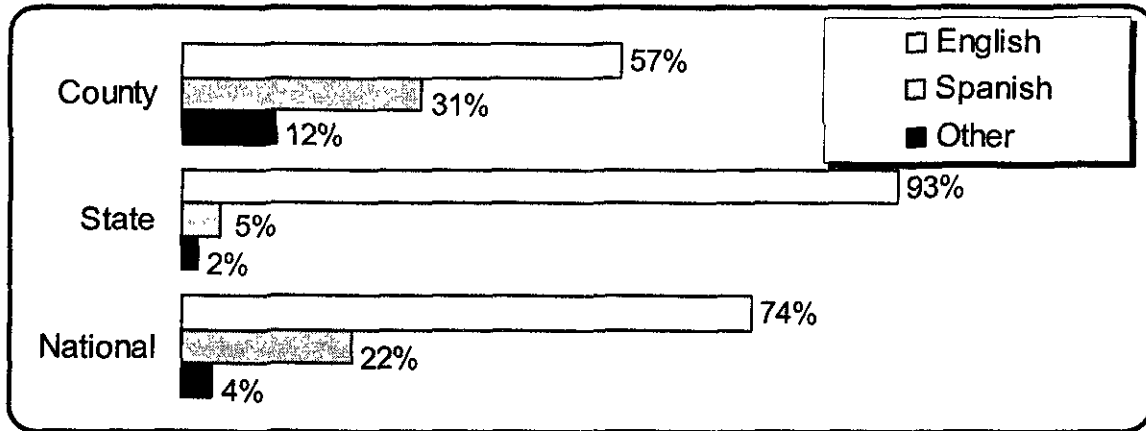


TABLE 22
AGE OF HEAD START STUDENTS

Age	Montgomery County N=800	Maryland N=9,768	National N=898,202
4 year olds	86%	57%	57%
3 year olds	14%	40%	36%
Other (1,2, and 5's)	0%	3%	7%
Total	100%	100%	100%

Source: National, Maryland, and Montgomery County 2000-2001 Program Information Report (PIR) Data (Obtained from Xtria-LLC).

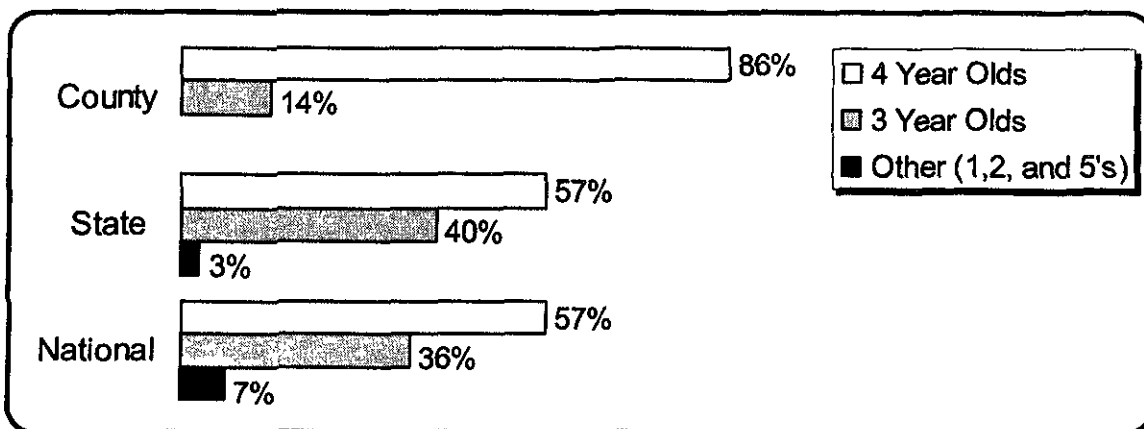


TABLE 23
DISTRIBUTION OF HEAD START STUDENTS BY PROGRAM LENGTH

Structure of Head Start Program	Montgomery County N=800	Maryland N=9,046	National N=823,520
Part Day, 5 days per week Center based	96%*	34%	23%
Full Day (6 + Hours), 5 days per week Center Based	4%	36%	39%
Part and Full Day, 4 to 4/5 days per week Center based	0%	28%	30%
Other (Home Based Option, Combination Option, Locally Designed Option)	0%	2%	7%
Total	100%	100%	100%

Source: National, Maryland, and Montgomery County 2000-2001 Program Information Report (PIR) Data (Obtained from Xtria-LLC).

*PIR classifies MCPS based Head Start classrooms as "part day centers".

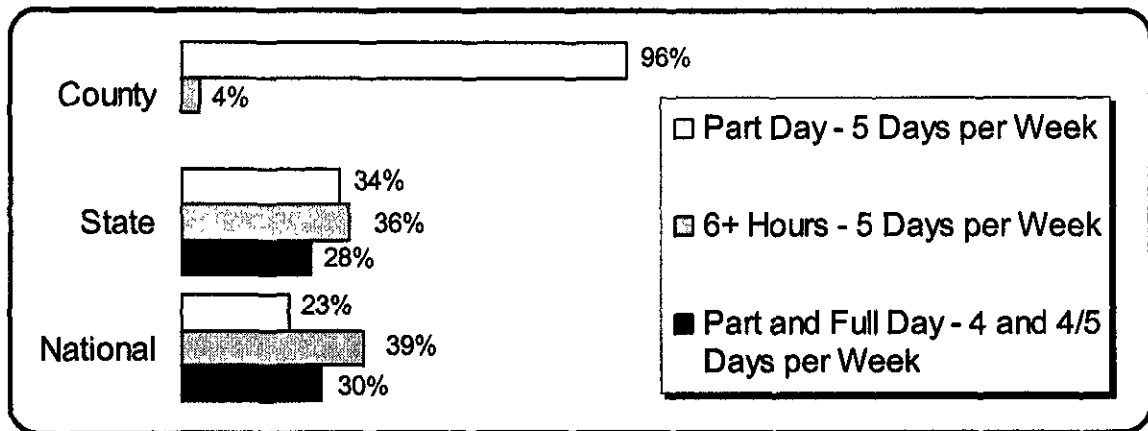


TABLE 24
HEAD START HOUSEHOLDS EMPLOYMENT STATUS

Head Start Households Employment Status	Montgomery County N=800	Maryland N=9,275	National N=830,719
Full Time	52%	58%	54%
Part Time or Seasonal	21%	17%	15%
Unemployed	27%	25%	31%
Total	100%	100%	100%

Source: National, Maryland, and Montgomery County 2000-2001 Program Information Report (PIR) Data (Obtained from Xtria-LLC).

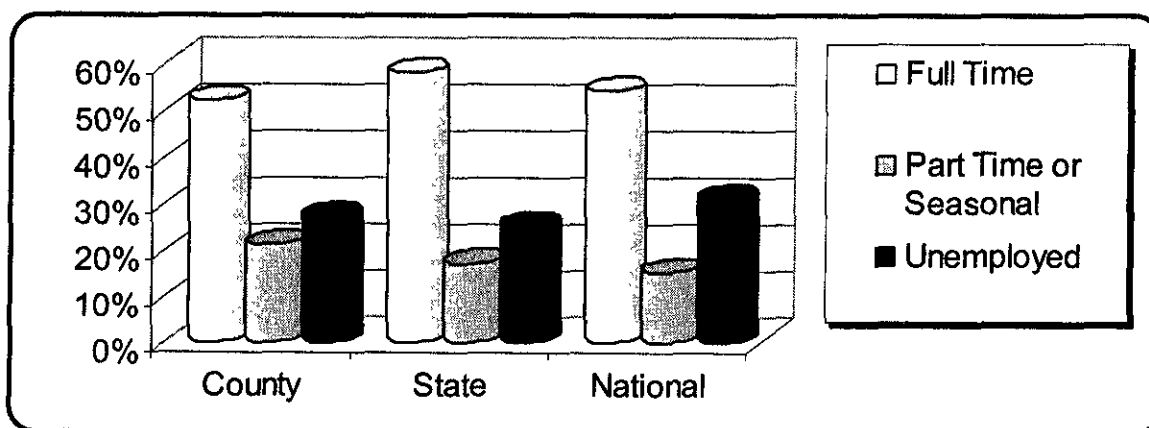
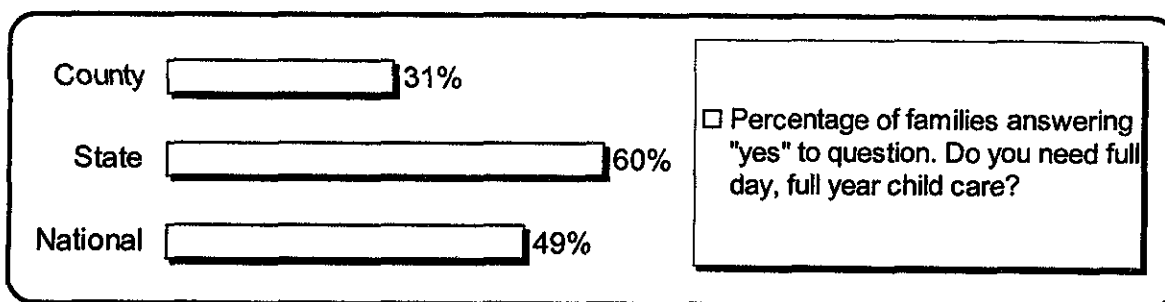


TABLE 25
HEAD START HOUSEHOLDS NEEDING FULL DAY, FULL YEAR CHILD CARE

Child Care	Montgomery County N=250	Maryland N=5,631	National N=405,354
Percentage of families answering "yes" to question. Do you need full day, full year child care?	31%	60%	49%

Source: National, Maryland, and Montgomery County 2000-2001 Program Information Report (PIR) Data (Obtained from Xtria-LLC).



MARYLAND MODEL FOR SCHOOL READINESS (MMSR)

The MMSR is an assessment and instructional framework that was developed collaboratively by the Maryland Committee for Children, Head Start, the Maryland State Department of Education, and Villa Julie College. MMSR trains early childhood care givers and teachers to observe children individually and tailor their curriculum to the school readiness needs of each child.¹

MMSR is being implemented statewide to increase the likelihood children will be better and more consistently prepared for kindergarten. MMSR incorporates the Work Sampling System as its assessment component. The Work Sampling System is a nationally recognized assessment system for early education that helps teachers document and assess children's skills, knowledge, behavior and academic accomplishment in several areas.

In the fall of 2001, 1,900 kindergarten teachers across the State documented children's performance in the classroom during the first few weeks of school. Teachers reviewed this data and grouped children into the following categories:

- Full readiness – students consistently demonstrate skills, behaviors and abilities which are needed to meet kindergarten expectations successfully;
- Approaching readiness – Students inconsistently demonstrate skills, behaviors and abilities which are needed to meet kindergarten expectations successfully and require targeted instructional support in specific domains or specific performance indicators; and
- Developing readiness – Students do not demonstrate skills, behaviors and abilities, which are needed to meet kindergarten expectations successfully and require considerable instructional support in several domains.

MSDE compiled this data into a report, which was released in 2002. MSDE reported that statewide:

- 49% children were rated “fully ready;”
- 44% children were rated “approaching readiness;” and
- 7% children were rated “developing readiness.”

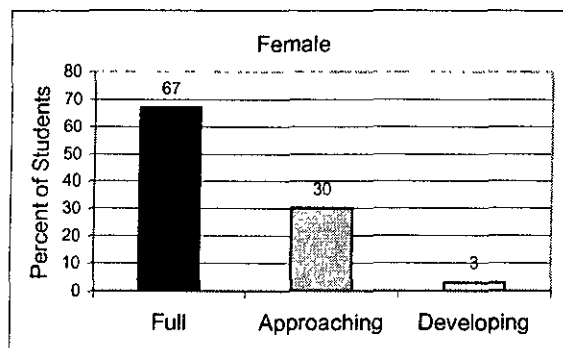
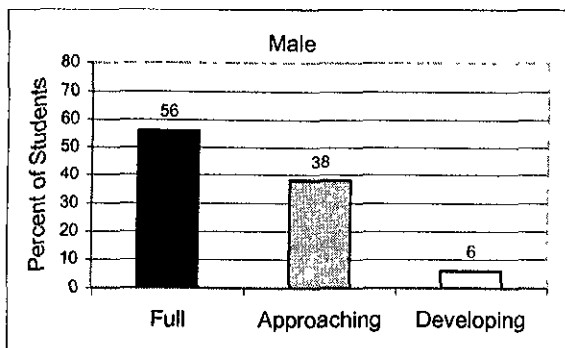
MSDE stated that the primary purpose of the report is to provide background information and baseline information and that it is essential that all service providers for pre-school children develop common goals to improve skills from year to year. MSDE suggested the countywide information will be helpful for county councils, local boards of education and local management boards in allocating funds for services to young children. The following pages summarize the MMSR results for Montgomery County.

¹ MMSR defines school readiness as the state of early development that enables a child to engage in and benefit from primary learning experiences. (Source: MSDE Fact Sheet 39)

Montgomery County 2001-2002

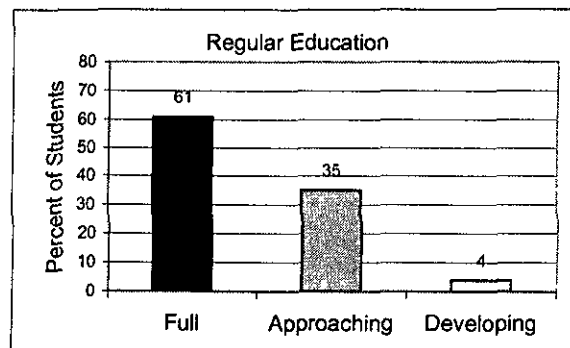
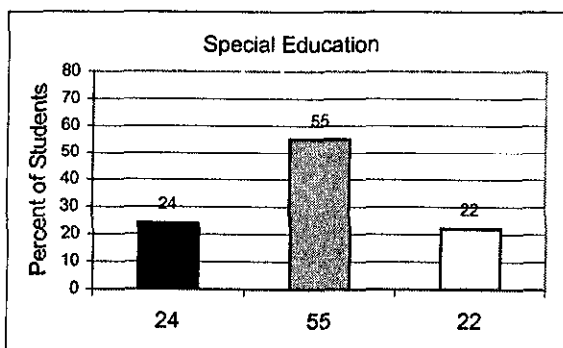
Disaggregated Data by Gender

Entering Kindergarten



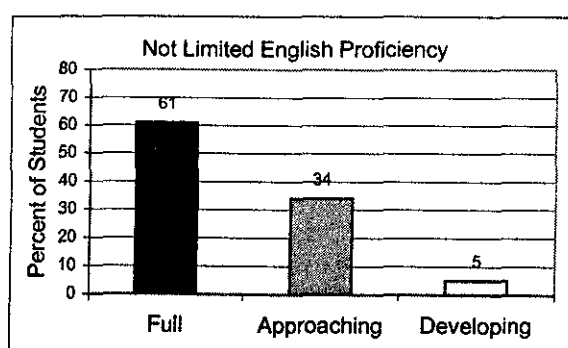
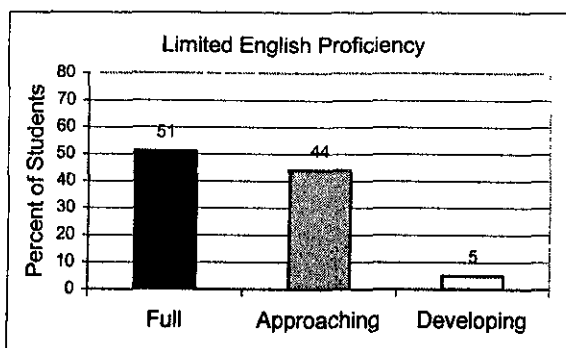
Disaggregated Data by Special Education

Entering Kindergarten



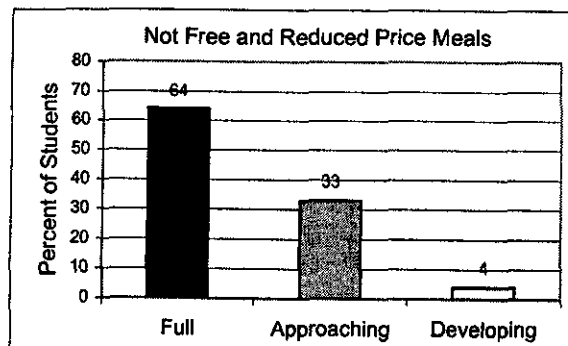
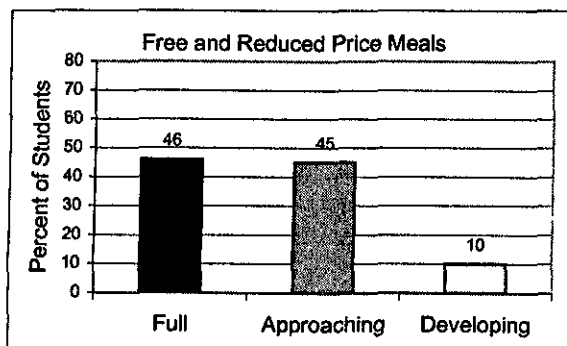
Disaggregated Data by Limited English Proficiency

Entering Kindergarten



Disaggregated Data by Free and Reduced Price Meals

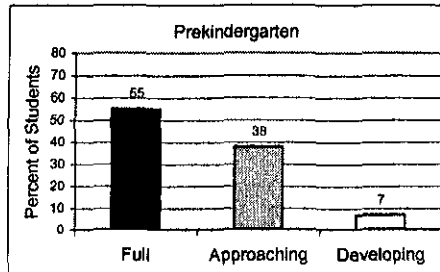
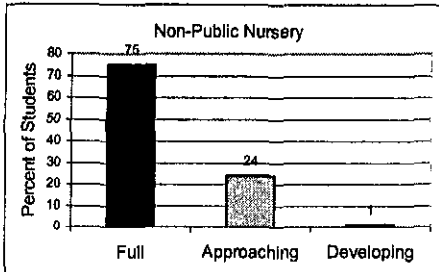
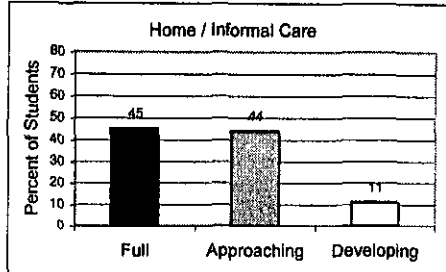
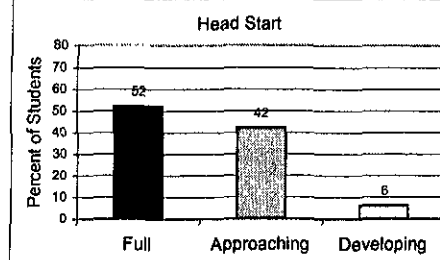
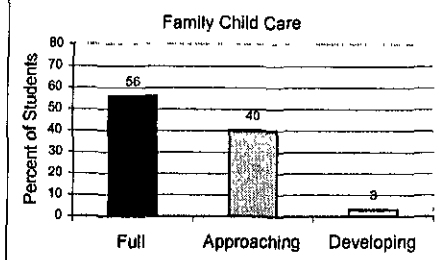
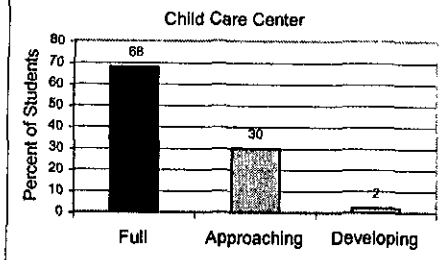
Entering Kindergarten



Montgomery County 2001-2002

Disaggregated Data by Prior Care

Entering Kindergarten



Child Care Center
Child care provided in a facility, usually non-residential, that for part or all of the day provides care to children in the absence of the parent. Centers are licensed by Child Care Administration.

Family Child Care
Regulated care given to a child younger than 13 years old, in place of parental care for less than 24 hours a day, in a residence other than the child's residence and for which the provider is paid. Regulated by Child Care Administration.

Head Start
Pre-school programs for 2 to 5 year olds from low income families; licensed by Child Care Administration and/or local boards of education.

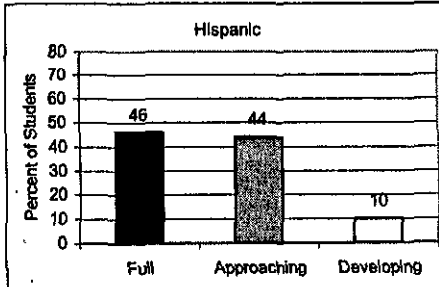
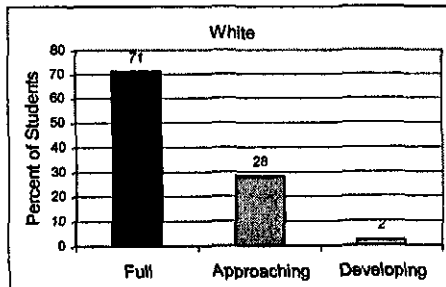
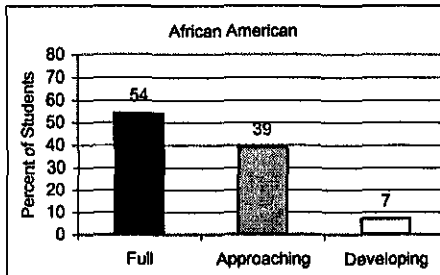
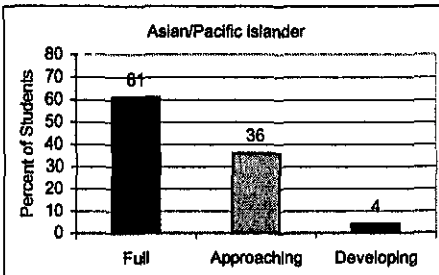
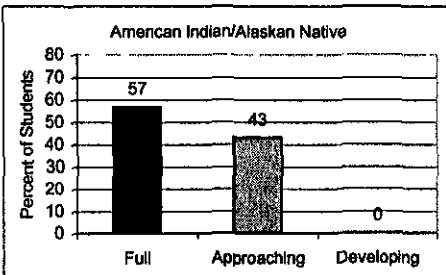
Home/Informal Care
Care by parent(s) or a relative.

Non-Public Nursery School
Pre-school programs with an educational focus for 3 & 4 year olds; approved or exempted by the Maryland State Department of Education, usually part-day, nine months a year.

Prekindergarten
Public school prekindergarten education for four-year old children. Administered by local boards of education and regulated by the Maryland State Department of Education (MSDE).

Disaggregated Data by Race / Ethnicity

Entering Kindergarten



Montgomery County - Percentage of Kindergarten Students

	Social and Personal		Language and Literacy		Mathematical Thinking		Scientific Thinking		Social Studies		The Arts		Physical Development		Composite						
	Full	Approaching	Full	Approaching	Full	Approaching	Full	Approaching	Full	Approaching	Full	Approaching	Full	Approaching	Full	Approaching					
Race/Ethnicity																					
Native	69	23	8	60	32	8	56	44	0	31	62	8	37	56	7	73	27	0	57	43	0
Asian/Pacific Islander	69	26	5	47	41	12	53	39	8	32	54	14	36	52	12	75	23	2	61	36	4
African American	54	36	10	40	46	14	46	44	11	28	58	14	33	55	13	64	30	5	54	39	7
White	73	24	3	58	37	5	64	33	3	40	55	6	46	50	5	75	24	2	71	28	2
Hispanic	59	33	8	28	48	24	35	48	17	21	57	22	24	55	21	66	31	4	46	44	10
Gender																					
Male	59	33	8	43	43	13	51	40	9	31	55	13	35	53	12	64	31	4	56	38	6
Female	73	24	3	51	39	9	55	38	7	34	56	10	40	51	9	78	21	2	67	30	3
Prior Care																					
Child Care Center	64	30	6	54	40	7	62	35	4	39	56	5	43	52	5	74	24	2	68	30	2
Family Child Care	68	27	5	42	46	12	50	42	9	32	53	14	41	48	12	70	29	1	56	40	3
Head Start	59	33	8	36	49	16	42	46	11	25	59	16	29	57	14	66	30	4	52	42	6
Home / Informal Care	57	34	9	30	43	27	37	45	19	21	56	23	26	52	21	65	31	4	45	44	11
Non-Public Nursery	77	21	2	63	34	3	67	31	2	42	53	5	48	48	4	78	21	1	75	24	1
Prekindergarten	62	31	8	40	45	15	49	41	11	27	54	19	31	51	18	63	30	8	55	38	7
Special Education																					
Yes	35	47	19	14	52	34	20	53	27	10	48	42	14	44	42	31	45	23	24	55	22
No	66	29	6	47	42	12	53	39	8	32	56	12	37	52	11	71	26	3	61	35	4
Limited English Proficiency																					
Yes	63	29	7	33	51	16	39	49	12	25	58	17	29	55	16	68	29	4	51	44	5
No	65	29	6	48	41	12	53	38	8	32	56	12	37	52	11	71	26	3	61	34	5
Free and Reduced Price Meals																					
Yes	56	35	9	30	48	22	38	46	17	22	57	21	26	53	21	63	31	5	46	45	10
No	67	28	5	50	40	10	56	38	7	34	56	10	39	52	9	72	25	2	64	33	4

* = fewer than 5

AN OVERVIEW OF THE RESEARCH LITERATURE ON EARLY CHILDHOOD INTERVENTIONS

Montgomery County funds multiple programs to serve preschool children from poor families. The programs differ in their goals, approaches and program designs. They include the federal Head Start program, the state pre-kindergarten program (EEEP), and vouchers and tax credits for working families to subsidize child care with private providers.

Since the early sixties, researchers have conducted hundreds of studies to understand how early childhood programs and/or child care affect child development, including school readiness.¹ The studies address many kinds of program interventions. Child care research has typically focused on quality issues and the impact of child care on the mother child relationship whereas preschool research has more often examined short term and long term cognitive outcomes.

This review summarizes the research for the Head Start program, state funded preschool programs, model preschool programs and child care programs. It describes the differences among the program types and the results associated with each approach. Each section presents program characteristics and summarizes available research evidence about outcomes and quality.

A. Head Start

Head Start is a voluntary preschool program administered by the federal government. The goal of Head Start is to improve the comprehensive school readiness of low income children by providing an array of educational, health and social services.

The Administration for Children and Families (ACF) in the Department of Health and Human Services administers the Head Start program. The federal government distributes funds directly to local providers. The most common types of providers are community action agencies (35%), private, non-profit organizations (28%) and public school districts (19%). Other providers include government organizations, churches, synagogues or other religiously affiliated organizations, and YMCAs or YWCAs.

Funding

Congress appropriates funding for Head Start annually. Local agencies may receive up to 80% of the total program funding from federal sources; the 20% match from nonfederal sources may include in-kind contributions, such as space, staff, supplies and equipment.

¹ A 1991 Carnegie Foundation study of kindergarten teachers found only 65% of students entered school "ready to learn." The attributes of school readiness included being physically healthy, rested and well nourished, able to communicate needs, wants and thoughts verbally, enthusiastic and curious about new activities, knowing how to take turns, and knowing how to sit still and pay attention.

Federal funds are distributed directly to local Head Start agencies using a formula based on the previous number of allotments and the number of poor children under five in each state compared to other states. Each Head Start grantee receives an allocation from the federal government and is told how many slots it must provide for eligible children. The federal government determines the number of slots by dividing the allocation for each grantee by its current "cost per child" rate.²

"Cost per child" rates vary by grantee. They are largely based on historical factors and do not reflect the actual costs of services presently provided. Individual grantees can request changes in their cost per child rates, but changes are relative infrequent and there has been no system wide review of these rates since the Head Start program was implemented.

Settings

About 90% of the children receive services at a Head Start center.³ The most common facilities include public schools (29%), government buildings (24%), religious facilities (21%) and private space (21%). Less than 10% of the programs operating in religious facilities are sponsored by religious organizations; most are operated by community action agencies or private, nonprofit organizations.

Guidelines and Oversight

In the 1970s, Edward Zigler, as the new director of Head Start, assembled a team to focus on program quality issues. By 1975, Head Start had promulgated detailed performance standards outlining what was expected of each program; it had established teacher credentialing procedures; and phased out summer only programs. It required programs to make sure children received preventative health care, nutritious meals and several home visits a year. It also required programs to evaluate themselves and to place parents on the board of directors.

In the 1990s, Congress used the program reauthorization to strengthen Head Start's emphasis on quality and results. To meet the requirements of the Government Performance Results Act (GPRA), Head Start established Program Performance Standards. These standards address the physical, emotional, social, cognitive, and language areas of children's learning and development. They identify specific areas where families are to be involved in Head Start and they require qualified staff to develop a curriculum based on sound child development principles about how children grow and learn.

² When Head Start began in the 1960s, agencies submitted proposals to the federal government indicating how much it would cost them, per child, to provide Head Start services. These "cost per child rates," adjusted over time for inflation and other factors, are still used today to allocate funds.

³ Head Start recognizes three program options. Under the most common option, the child receives services at a center, with a few home visits during the year. The second option provides services at a child's home, with some opportunities for group interactions. The third option combines center attendance and home visits.

In terms of program assessment, Head Start has a federal and a local component. At the federal level, a team of experts and staff from the regional federal office conducts an on-site review once every three years. The team uses focus groups, individual interviews, observations, and a review of written program documents to evaluate a program's management systems and program quality. In addition, local programs must conduct annual self assessments to determine how they are meeting their goals and objectives and implementing the program performance measures for self assessments. Federal law required programs to begin implementing assessments in the fall of 2000 and to be operating fully by 2001.

Eligibility and Accessibility

Head Start serves children who are living in households with incomes at or below 100% of the federal poverty level. Twenty-two states provide supplemental funding for Head Start programs. Supplemental state money is used to meet the federal match requirement, to increase the number of children served, or to increase the quality of services.

The amount of state funding varies widely. In FY 2000, Ohio provided \$97 million; Maryland provided \$3 million; and New Hampshire provided \$230,000 in supplemental funding.

Head Start provides its services free of charge to all families.

Head Start programs are not required to provide transportation services; however 53% of all children currently receive transportation services. In January 2001, the ACF published a final rule in the Federal Register that requires programs to assist families in finding transportation and establishes the following specific requirements and deadlines:

- By January 2002, each local Head Start program must use bus drivers who have a Commercial Drivers License (CDL);
- By January 2004, each local Head Start program must equip each vehicle with an appropriate child restraint system for each child;
- By January 2004, each local Head Start program must provide at least one bus monitor (with training) on board at all times; and
- By January 2006, each local Head Start program must use a school bus or an "allowable alternative vehicle" to transport children. (Home based programs are excluded from this requirement.)

Program Duration and Intensity

Head Start programs can choose to operate four or five days per week. The annual number of required days varies from 128 to 160 days per year and depends on the number of operating days per week. Classes must operate for a minimum of 3.5 hours to a maximum of six hours per day, with four hours being optimal. Beginning in 1997, Head Start launched an initiative to provide full day care to meet the needs of working families. Head Start estimates it will serve 915,000 children in 2002 and approximately one-quarter of these children (225,000) will receive full-day, full-year services. The remainder will attend part-day preschool programs that follow a school year schedule.⁴

⁴ HHS Fact Sheet, Head Start: Promoting Early Childhood Development, April 16, 2002.

Classroom Characteristics

Head Start performance standards require an average of 17-20 children per class depending on the age of the children. Classes with three-year olds must have a maximum class size of 17 children and classes with mostly four-year olds must have no more than 20 children in any class.

A Head Start classroom must have at least two teachers for each class, with a teacher child ratio of 1:10 for a class of four-year olds. Head Start lead teachers must have a degree in early childhood education or a child development associate (CDA) certificate. Beginning in 2003, at least half of all classrooms must have at least one teacher who has at least an associate college degree.

Services

Head Start programs must provide comprehensive services to all enrolled children and families. The mandated services include physical health referrals, immunizations, vision and hearing tests, mental health referrals, nutritious meals, dental referrals, home visits and family case workers.

Head Start programs must also provide parental involvement activities. Programs encourage parent involvement by providing training in child development, creating volunteer opportunities, hiring parents as classroom assistants, bus drivers or family service workers, and establishing local governing councils.

Research Studies and Findings

In its role as a national laboratory for child development, Head Start has allocated about two percent of its budget to research. Throughout Head Start's 35 year history, hundreds of studies have been conducted as well as periodic reviews of these research studies.

- In 1971, Bronfenbrenner conducted a review of the studies to date and concluded that Head Start yielded short term benefits which faded out in elementary school within two to three years. He emphasized the importance of family interventions to counteract this fade out effect.
- In 1981, a meta analysis reviewed 210 reports to synthesize outcomes for the first 20 years of Head Start's operation. The final analysis looked at 76 studies. Unfortunately, the criteria to select the final studies did not include any criteria to address methodological design flaws. This meta analysis concluded that Head Start produced definite physical health benefits and immediate, but transitory, cognitive and socio-emotional benefits. Head Start participants were also found to have better school success, as measured by lower rates of grade retention and special education use.

In 1997, the General Accounting Office (GAO) completed the most recent review of Head Start research. GAO identified more than 600 studies and citations of Head Start programs. GAO screened these studies to identify those evaluations which used comparative groups and tests of statistical significance. This process produced 22 impact studies.

GAO's review of these studies found that most studies focused on cognitive outcomes despite the broader goals of the Head Start program. Only a few of the studies looked at subpopulations although Head Start serves multiple ethnic groups. Finally, all of the studies had methodological problems, such as small sample sizes and issues related to the noncomparability of the comparison groups.

No clear pattern of findings emerged from this group of studies.

- A study by Janet Currie and Duncan Thomas investigated 5,000 Head Start children. It concluded that Head Start has significantly favorable and lasting effects on test scores and school attainment compared to participation in other preschool programs or no preschool. African American children also showed gains; however they were not sustained.
- A study which compared cognitive outcomes for children in Head Start, community care, and no group care found few differences between the Head Start and community care group.
- A 1985 study of children who attended Head Start in Montgomery County reported that the Head Start group had a higher percentage of students who scored above the 80th percentile on one subtest of the Cognitive Abilities test administered in third grade.

GAO found no large scale evaluation with a nationally representative sample had been conducted despite Head Start's long history and substantial investment in research studies. To remedy this situation, Westat, in collaboration with the Urban Institute, the American Institute for Research and Decision Information Resources, has been awarded a \$28.3 million evaluation contract. The congressionally mandated study has two goals:

- To determine the national impact of Head Start on children's school readiness by comparing children in Head Start to children not in Head Start; and
- To determine under which conditions and for which children Head Start works best.

Researchers will collect data on 5,000 to 6,000 preschoolers from 75 programs across the country. The evaluation will take six years to complete, in part because the study will follow children through the spring of the first grade of elementary school. An interim report is scheduled for 2003 which coincides with the next reauthorization of Head Start; however, this report will not likely contain any findings. The final report is due in December 2006.⁵

B. State Preschool Programs

State preschool programs are typically part-day educational programs. The primary goal is to increase school readiness. The voluntary programs target pre-kindergarten children (usually three-year olds and four-year olds).

State preschool programs are usually funded and administered through the state department of education. In 2000, 42 states invested \$2 billion in state preschool programs, compared to seven states which invested \$25 million in the 1970s.

A review of the characteristics of state financed preschools by Gilliam and Ripple (in press) shows that great variability exists among these programs in terms of program guidelines, eligibility requirements, providers, setting, standards, and hours. The variations are described in further detail below.

Settings

All programs locate at least some classes in public schools; eight states use only public school classrooms.⁶ Many states use a variety of locations, usually through subcontracting arrangements with local public school system as the primary grantee. Two-thirds of the states locate some classrooms in Head Start centers. Four states offer home based programs.⁷

Guidelines and Oversight

About three-fifths of the states require local providers to follow well established guidelines for early childhood care and education, usually either Head Start performance standards or guidelines established by the National Association for the Education of Young Children (NAEYC).⁸ One-fifth require only licensing requirements and one-fifth

⁵ The contract calls for a pilot study to be conducted in the spring 2001. This study will investigate "variations that exist across different communities with respect to Head Start programs and the availability of other care options for low income children." GAO-01-542 Early Childhood Programs: The Use of Impact Evaluations to Assess Program Effects, April 2001.

⁶ The eight states that use only public school classrooms are the District of Columbia, Kansas, Louisiana, Minnesota, Mississippi, West Virginia and Wisconsin.

⁷ The four states that offer home based programs are Arkansas, California, Michigan and Washington.

⁸ NAEYC is a professional association in the early childhood field that has established standards for programs that seek to be accredited. The standards look at whether the classroom is welcoming and toys and materials are age appropriate. The standards also set group sizes and adult child ratios. For four or five-year olds, an accredited program will have two teachers for 16 to 20 children. The standards also require staff to have training in early childhood development and access to ongoing professional development. NAEYC has not set standards for what children should be able to do or know at certain ages.

require no program guidelines for young children; instead they rely on local public school policies designed for older children. Most recommend a suggested curriculum but no state mandates a specific curriculum.

Many states mandate an evaluation of program implementation and impact as part of the state legislation authorizing the program.

Eligibility and Accessibility

State preschool programs usually have broader eligibility requirements than Head Start. The most typical eligibility requirement is that a family's household income must not exceed 185% of the federal poverty level, which corresponds to eligibility for reduced meals from National School Lunch Program. Recently, three states (Georgia, Oklahoma and New York) and the District of Columbia have launched a universal pre-kindergarten program which bases eligibility on age alone.

In practice, space, funding and partial implementation currently limit who is actually served and the share of children served varies widely from state to state. For example, Louisiana and West Virginia serve five percent of all eligible children compared to over 80% in Colorado, Iowa and New York.

Unlike Head Start, which provides its services free of charge, some preschools charge fees for at least part of their services. Also, most states do not provide free transportation to everyone who needs it.

Classroom Characteristics

Most states set a maximum class size of 20 children, similar to the Head Start requirements. However, three states exceed these guidelines (Texas (22), California (24) and New Jersey (25); three states have no guidelines, Florida, Maine and Wisconsin.

Most states require classroom teachers to have Bachelor of Arts. Most other states required at least a Childhood Development Associate (CDA) credential.

Program Duration and Intensity

State preschools follow the school year schedule. The majority operate a part-day program ranging from 2.5 to 4 hours. One-quarter of the states let local providers determine the length of operation. About half of the states provide a preschool program which children may attend for more than one year.

Comprehensive Services

The Head Start program sets the standard for supporting supplemental services.⁹ Only half of the states mandate five of the eight services required by Head Start. The most widely offered services are physical health referrals, immunizations, vision and hearing tests, mental health referrals and meals. The least provided services were on-site family caseworkers, home visits and dental referrals. Two of the eighteen states that provide family caseworker services subcontract with Head Start to provide this service.

Parent Involvement

Parent involvement efforts in state financed preschool programs are less intensive than Head Start. Approximately 35% require parental involvement in governance or implementation; 26% encourage involvement. Four states offer a full range of parent involvement activities – three of these because they adhere to the Head Start performance standards.

Research Studies and Findings

As of 1998, 13 of 33 state preschool programs had completed a formal evaluation of their program's impact on child outcomes. Seven of these were conducted by third parties; six were conducted by the state department of education. Ten studies used comparison groups and three did not. (Gilliam and Zigler, 2001)

Gilliam and Zigler categorized the different types of outcomes from the research studies into one of 11 domains. These domains were developmental competence, self perceived competence, behavior problems, physical health, school attendance, grades, academic achievement test results, grade retention, special education referral, parent involvement and drop out rate. Most states reported outcomes in more than one domain. Some of the key findings reported were as follows:

- The studies found “sizable and robust” effects in developmental competence with significant positive impacts reported by end of preschool.¹⁰ Significant effects were inconsistent at first grade and nonexistent beyond that point.
- All states found significant impacts in school attendance which persisted beyond the program intervention. New York found statistically significant impacts at 5th and 6th grade and Maryland found positive impacts at 10th grade.
- Every state that evaluated retention rates found statistically significant impacts at one or more grade levels.
- Surprisingly, states reported few significant differences for special education referral and placement rates.

⁹ Head Start requires eight services: physical health referrals, immunizations, vision and hearing tests, mental health referrals, nutritious meals, dental referrals, home visits and family case workers.

¹⁰ Developmental competence included measures of social emotional development, self help skills, motor skills, language skills, cognitive development, academic and literacy skills.

Overall, most statistically significant impacts were sustained only as far as kindergarten or first grade. This pattern of findings closely resembles the modest effects of other large scale programs like Head Start, rather than more impressive impacts of smaller scale model programs. One researcher concluded that judged by criteria of school readiness, evaluations generally provide relatively consistent evidence of effectiveness as measured by children's improved developmental competence, school attendance and school test scores and reduced grade retention.

C. Model/Experimental Programs

The phrase "model programs" refer to a group of interventions in which researchers established a program in large part to study the effects of exemplary (or model) practices. Most of the programs are considered small scale because they serve 200 children or less at one site. One program, the Chicago Parent Child Center, is sometimes considered a model large scale program because it served 3,000 to 5,000 students a year at two dozen sites.

Model programs are similar in their program size and overall high program quality. They vary substantially in their settings, the types of interventions, and the duration and intensity of the program. Some of the characteristics of these programs are highlighted below. See © 74 for a summary of a few select programs.

Settings

The majority of small scale programs provide classroom services. In some cases the service was characterized as full-day child care; in other cases it was a part-day preschool program.

Guidelines and Oversight

Model programs were usually closely supervised and overseen by the team of researchers conducting the study. Many research reviews acknowledge that this access to expertise and high level of commitment distinguishes the model programs from other early childhood interventions.

Eligibility and Accessibility

Many programs relied on carefully designed procedures to select program participants as well as a control group. The Perry Preschool Program and the Milwaukee program selected children based on low IQ scores; most other studies used other selection criteria.

Classroom Characteristics

Model programs typically used highly qualified staff, low child staff ratios, and small class sizes.

Program Duration and Intensity

Model programs vary widely in the duration and intensity of the program. The age of entry ranges from prenatal to six years, with many of the programs beginning at age four. Most programs ended at five years; however the Carolina Abecedarian project and the Chicago Child Parent Center project continued services through age eight. The intensity of the interventions also varied widely. Most programs offered a part-day preschool program, supplemented by home visits; however, other programs offered home visits and full day child care.

Comprehensive Services

Most programs offered home visits and a range of other activities for parents. Examples of these services pediatric care, developmental screenings, and job and academic training for mothers

Research Findings and Results

Barnett reports that the research from the model programs show that a variety of approaches seem to work equally well for disadvantaged children. These approaches include one to one tutoring, half day preschool and full day child care. See article attached at © 77.

Researchers agree that these programs can produce a boost in IQ of up to eight points in the short term and report similar positive effects for preschool and kindergarten achievement measures. The studies show changes of smaller magnitude for socio-emotional outcomes and, over the years, these effects declined to the point where they were negligible.

The research studies of small scale model programs suggest that these programs can have positive long term effects on children, in addition to the short term benefits identified above. Barnett found IQ effects persisted into adolescence in two experimental studies that enrolled infants in full day educational child care programs. In terms of achievement tests, five of the 11 studies with achievement test data found statistically positive effects beyond third grade.

Across all of the model programs, there was overwhelming evidence of sizable improvements in school success over the long term. Specifically, Barnett found all but one of the model program studies reported grade retention and special education rates that were lower for the program group than the control group.

D. Child Care

In 2002, over 60% of children under five, or almost 12 million children, are in regularly scheduled child care outside the home. This fact reflects the entry of large numbers of women into the labor force due to both social and policy changes in American society. According to the U.S. Census, nearly three-fourths of mothers with children at least one year old are in the labor force.

The changes to the welfare program in 1996 have been accompanied by significant increases in child care spending. In 2000, states spent over \$8 billion for child care subsidies in the form of vouchers or direct payments to providers. Over \$6 billion came from the federal government.

Settings

Child care is provided in a variety of settings, including a child's home, the home of a neighbor in a family day care setting, or a child care center. As of 1999, for children between birth and age five:

- 38% were cared for by their parents only,
- 20% were in center based programs,
- 15% were in relative care,
- 13% were in multiple arrangements,
- 11% were in non-relative in-home care, and
- 3% were in Head Start.¹¹

A parent's choice of child care settings is influenced by a child's age, household income, family size, a mother's work schedule and demographic factors. The research has found that close to half of all infants are cared for by relatives during the first year but that care shifts toward a child care center or a family day care home after the first year. Preschoolers are likely to have some type of center based care.

Researchers report that as education and household income increase, parents are more likely to rely on regulated child care centers. Lower income families are more likely to rely on informal child care arrangements with relatives and unregulated family providers. Larger families are more likely to use in-home or relative arrangements as are mother's who are employed part-time or who work evening or night shifts.

The choice of child care settings also varies by ethnicity. Hispanic families most often use care by a relative and are more likely to use unregulated homes. Black families use relative care and center care equally, and are more likely to use relative care and unregulated homes than white families. White families are more likely to use regulated homes.

¹¹ According to the National Household Education Survey, of children between birth and five are cared for in child care setting, 40% were in a for-profit or self-contained child care center, 28% were in a church or other religious setting, and 12% were in a public school building.

A parent's choice of child care also depends on a parent's values and his or her views of quality. The research shows that parents' definitions of quality differ as do their perceptions of what a particular setting offers. Parents who use regulated providers and child care centers stress professional standards and believe quality and safety are assured by a structured, monitored environment with a trained staff. Parents who chose informal and family care emphasize the familiarity of their providers and believe safety is assured by individuals they know and trust.

Finally, child care settings vary by state. Several studies have found relative care and in-home care arrangements are more common in the Northeast while center based care is more common in the South. The National Survey of America's Families by the Urban Institute found that the percentage of young children in relative care ranged from 18% in Minnesota to 39% in California. Infants are more likely to be cared for in a home or family center whereas preschoolers are more likely to receive some care in a child care center.

Guidelines and Oversight

State and local governments are responsible for regulating child care. Typically, all states regulate child care centers; however, states differ in their regulation of family providers and relative care. States establish the maximum number of children who may be cared for by the type of setting and also establish adult child ratios that vary by age of the child. Typically, state child care regulations assure the basic physical health and safety of children in care but do not address quality of care issues.

Eligibility and Accessibility

Eligibility and accessibility to child care is determined by household income, the cost of care and the availability of care.

States administer child care subsidy programs, financed in large part by the federal government, to help low income families increase their access to child care. The eligibility requirements, reimbursement rates and payment provider rates vary from state to state. Many studies report that the current funding for child care subsidies serve approximately 12% of all eligible children.

Some research studies report that parents think of availability with the constraints of affordability and accessibility. The National Child Care Survey reported that only half of families with incomes under \$25,000 perceived a center to be available compared to 70% of families with incomes over \$50,000. The research also reports that the supply of centers may be more limited in low income neighborhoods. A GAO study which examined the supply of child care found supply was not an issue for preschoolers, but was an issue for infant care.

Classroom Characteristics

The classroom characteristics and provider qualifications for child care vary widely. Because many children are cared for by relatives or family providers, a classroom is, in fact, nonexistent. In child care centers, classrooms may be similar to a classroom in an elementary school; however, the quality varies widely. Provider training also covers a huge range. Many relatives and family day care providers have no formal training. In a child care center, staff may have a high school education and a certificate in early childhood education.

Program Duration and Intensity

The vast majority of child care services are available for an average of ten hours a day, five days a week, year round because this schedule supports the needs of working parents. Many children enter child care at three months of age and remain in full time care they enter school, when they shift to care before and after school.

Comprehensive Services

Child care providers typically do not provide the extensive set of comprehensive services mandated by the Head Start Programs. Meals for low income children who attend child care centers may be provided through a federal meals program. Low income families may be eligible for other family and social support services but typically will not access these through their child care provider.

Parent Involvement

Child care providers do not offer the structured parent involvement activities found in the Head Start program; however providers generally see a parent or family member on a daily basis when a child is dropped off and picked up from a center or home. These daily interactions provide opportunities for the provider to share parenting tips and discuss concerns parents may have.

Research Findings and Results

Historically, research on child care services focused on the possible negative effects of child care on the mother/child relationship and less on the child's cognitive development and school readiness. In the last twenty years, more studies have addressed measures of quality and their relationship to the child's cognitive development. Researchers commonly use two measures of child care quality.

- Structural quality refers to the characteristics of the child care setting and the caregivers. It encompasses items such as the ratio of children to adults, the formal education or training of the caregivers and the maximum group size. Many structural aspects may be addressed in state or local licensing regulations.

- Process quality refers to observations of what is happening in the classroom. Researchers use observations and rating scales to score children's interactions with caregivers and other children.

The child care research finds that higher quality care is associated with better cognitive, language and social development for children and that lower quality care with poorer outcomes in these areas. For example, the National Institute of Child Health and Development (NICHD) Study of Early Child Care (see below) found that child care situations with safer, cleaner, more stimulating physical environments and smaller group sizes, lower child adult ratios and care givers who allowed children to express their feelings also had care givers who were observed to provide more sensitive, responsive and cognitively stimulating care.

The research finds relationships between structural quality and child outcomes. Specifically, children in classrooms with lower child adult ratios were better able to understand, initiate and participate in conversations, had better general knowledge, were more cooperative and showed less hostility and conflict than children in settings with higher ratios. Generally, preschoolers were more ready for school when caregivers were better educated and trained.

Where process quality is higher, researchers find that children appear happier, have closer and more secure attachments to their caregivers and perform better on cognitive and language tests. Poor process quality is associated with increased behavior problems.

A description of some key research studies are summarized below:

The Cost, Quality and Child Outcomes Study

In 1993, the Cost, Quality, and Child Outcomes in Child Care Centers Study identified 401 child care centers in four states, Connecticut, North Carolina, Colorado and California. Researchers collected data on the costs and quality. The researchers observed the centers and 826 children who attended the centers and collected data on costs, quality and child outcomes. The research found:

- Child care at most centers in the United States is poor to mediocre.
- Only one in seven centers provides a level of quality that promotes healthy development. Seven in ten centers are providing mediocre care which may compromise children's ability to enter school ready to learn.
- In general, children's cognitive and social development is positively related to the quality of their child care experience. The quality of child care is associated with developmental outcomes for all children across all levels of the mothers' education and in some cases is even more important for at-risk children.

- Children in higher quality settings had more advanced social skills than children in lower quality settings, had more positive attitudes toward their child care experiences, and had warmer relationships with their teachers than children in lower quality settings.

The Children of the Cost, Quality and Outcomes Study Go to School

This study, which was a follow-up to Cost, Quality and Child Outcomes Study, followed 826 children from that study for four years, from their next to last year of preschool through second grade. The researchers summarized the reports' findings in the following statements about the influence of center-based child care on children.

- High quality child care is an important element in achieving the national goal of having all children ready for school. The findings showed the quality of children's experiences in typical child care centers affects their development while they are in care and their readiness for school. Also, this influence of quality was important across a wide range of family backgrounds.
- High quality child care continues to positively predict children's performance well into their school careers. The study found the quality of child care in the preschool years affected children's development at least through kindergarten and in many cases through the end of second grade. Specifically quality was related to both basic cognitive skills and behavioral skills in the classroom.
- Children who have traditionally been at risk of not doing well in school are affected more by the quality of child care experiences than other children. Children typically considered at risk, e.g. children whose mothers had lower levels of education, received more benefits from high quality child care and these influences were sustained through second grade. These children were also more sensitive to the negative effects of poor quality child care.
- The quality of child care classroom practices was related to children's cognitive development, while the closeness of the child care teacher relationship influenced children's social development through the early school years. Children who attended higher quality classrooms had better cognitive development through early elementary school and children who had closer relationships with their child care teachers had better classroom behavior and social skills through early elementary school.

The Study of Early Child Care

In 1991, the National Institute of Child Health and Human Development (NICHD) recruited 1,364 families for a longitudinal study to follow children through the first seven years of life. The Study of Early Child Care participants mirror the national population. The goal of the study is to answer questions about the relationships between children's early experiences and their developmental outcomes.

The team looked at whether child care characteristics including quality, number of hours in care, type-stability, predict children's cognitive and language development as well as school readiness. The researchers reported that "the quality of child care over the first three years of life is consistently but modestly associated with children's cognitive and language development. The higher the quality of child care, the greater the child's language abilities at 15, 24, and 36 months, the better the child's cognitive development at age two and the more school readiness the child showed at age three."

A study published in May 2002 looked at specifically at the relationship between child outcomes and caregiver training and child staff ratio. This study concluded better training and smaller child staff ratios "lead to better, as well as more, interactions between children and adults, which in turn lead to improvement in children's cognitive and social competence." These findings remained constant regardless of where the care took place or whether the care giving was provided by teachers in child care settings, by relatives, or by other in-home providers. The research also found that the quality of maternal care giving is the strongest predictor of a child's cognitive competence and a moderate predictor of social competence.

SELECT MODEL PROGRAM DESCRIPTIONS

The Early Training Project. The purpose of the Early Training Project, based in Murfreesboro, Tennessee, was to improve academic performance through better cognitive performance and achievement orientation. The program served 65 four and five-year olds between 1962 and 1965. It provided weekly home visits during the year plus a 10-week, part-day preschool for two or three summers. The services were delivered in a child care center and at home.

Assessments for The Early Training Project were conducted during the program period and in 1965, 1966, 1968, 1975 and 1978. At final follow-up most participants were 19 years old with 80% of original participants available. The research findings showed:

- There was a dramatic reduction in the use of special education.
- IQ differences were significant but disappeared within a few years.
- There were differences in achievement test scores, grade retention or high school graduation rates; however, these differences were not statistically significant.

The High/Scope Perry Preschool Project. The purpose of this intervention was to improve cognitive and social outcomes in short term and long run. The program enrolled 123 African American children and their parents in waves between 1962 and 1967.

The program provided a half-day preschool five days a week, plus a weekly home visit for eight months of the year for two years. Teacher student ratios were 1 to 6 and all teachers had a masters degree, plus training in child development. Researchers assessed participants annually through age 11 and at ages 14, 15, 19 and 27 when 117 of 121 participants completed interviews.

Policy makers frequently use the research findings from the Perry Preschool Project to make the case for the effectiveness of early childhood interventions:

- At age 27, researchers found positive effects of intervention on achievement tests, grades, high school graduation rates, and earnings and negative effects on crime rates and welfare use.
- The time spent in special education was significantly lower for program children at ages 19 and 27.
- Researchers found at end of program intervention, children who participated in the program had IQ scores that exceeded the control group by eleven points; however effect declined after school entry and disappeared by second grade.
- Preschool participants had better grades and were more likely to have graduated from high school; however, at age 28, no differences existed in participation in postsecondary education.

Carolina Abecedarian Project. The Carolina Abecedarian Project was designed to test the effectiveness of early interventions for children from low income families. The goal of the project was to prevent mild mental retardation and improve academic and social competence at school entry. The project served 111 children at one site from 1972 to 1985.

Researchers recruited families from prenatal clinics and social service agencies. Children received nutritional supplements during the first years of life and families received social service referrals until the child was eight years old. Researchers randomly assigned children to different groups at birth and at school age entry. At birth, one group received no services and the other group received year round enriched center based child care services for eight hours/day five days a week from birth through age five. At school entry, one group received no services and the other group was assigned a Home School Resource Teacher who maintained contact between the parents and school, served as a community resource person, and provided additional instruction. Teacher student ratios were 1:3 from birth to school entry and 1:6 after school entry. The services were delivered at a child care center.

Some of the key findings from the Carolina Abecedarian project were as follows:

- At age 15, children who received preschool services had higher scores on achievement tests and reductions in the rate of grade retention and special education, regardless of whether they received further treatment in school or not.
- At age 21, children who received preschool treatment had higher average tests scores and were twice as likely to still be in school or ever have attended college.
- IQ scores were significantly higher for preschool participants at end of preschool intervention and at ages 8 and 12; however, by age 15 the difference was favorable but no longer statistically significant.
- At age 15, the effects of intervention for children who had received treatment in school were small or statistically insignificant.

Generally the research studies of small scale model programs had fewer design issues than the studies of large scale programs. For example, about half of the studies formed comparison groups by random assignment whereas none of the studies of large scale programs used random assignment. The attrition of program participants could have affected the findings of one-third of all studies. Finally, the use of in-house versus independent measurement instruments affected all of the large scale studies and at least four of the model program studies.

Chicago Child Parent Centers. The Chicago Child Parent Center is a large scale model program launched in 1967 in the Chicago Public Schools. The program serves between 3,000 and 5,000 children each year. The Child Parent Centers are located in buildings that are attached to elementary schools.

The program provides classroom and home based activities for three and four-year old children during the school year. In class, a public school teacher provides a structured half day program to promote reading and language skills. Outside of the classroom, a teacher works with the child's parents on activities that promote school readiness. Children also receive free breakfasts, lunches and health screenings.

In 1978, state funding expanded the program to add a full day kindergarten component and to provide smaller class sizes, parental involvement activities and instructional coordination through the third grade.

Some of the research findings are as follows:

- Participants had significantly higher reading and math achievement scores and lower rates of grade retention than non-participants at age 9.
- The differences in achievement scores became smaller over time although they remained significant for math scores through age 14.
- For most outcomes through age 9, those who participated four years or more had the greatest benefits. The results also showed that participation in both the preschool and primary grade components yielded the greatest benefits.

Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes

W. Steven Barnett

Abstract

The extent to which early childhood programs produce long-term benefits in children's cognitive development, socialization, and school success is a matter of some controversy. This article reviews 36 studies of both model demonstration projects and large-scale public programs to examine the long-term effects of these programs on children from low-income families. The review carefully considers issues related to research design. It includes studies of preschool education, Head Start, child care, and home visiting programs, and focuses primarily on the effects of program participation on children's cognitive development. Results indicate that early childhood programs can produce large short-term benefits for children on intelligence quotient (IQ) and sizable long-term effects on school achievement, grade retention, placement in special education, and social adjustment. Not all programs produce these benefits, perhaps because of differences in quality and funding across programs. The article concludes with recommendations for future action.

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The contribution of early childhood care and education (ECCE) to the healthy development and future well-being of children who are economically and socially disadvantaged has become a vital public issue with important implications for families, business, private philanthropy, and government. It will be shown through a detailed, critical review of research that public investments in quality early childhood care and education can produce important long-term improvements in the intellectual and social development of disadvantaged children. Unfortunately, because the United States underinvests in both the quantity and quality of early care and education, the nation forgoes many of the potential benefits at an annual cost estimated in billions of dollars.

The above conclusions could easily come as a surprise to those who are familiar with the debates that have swirled around child care and other

ECCE programs such as state-sponsored preschool education and the federal Head Start program in the past several years. There is widespread agreement that ECCE programs can produce short-term gains in disadvantaged children's performance on standardized tests of intelligence and academic ability and that some preschool programs have reduced later grade retention and special education placement. However, there has been considerable disagreement about how these gains are produced, what they mean, whether they persist, and what other long-term consequences might be expected.¹⁻⁴

The disagreements regarding long-term effects are so extreme that it is impossible to make public policy recommendations without resolving some of them. The key questions to be addressed for ECCE policy are as follows:

1. What are the effects of ECCE programs on the cognitive development, socialization, and school success of disadvantaged children? How long do they persist?
2. Are some types of ECCE programs more successful than others (for example, home visits versus center-based programs; model interventions versus large-scale programs such as Head Start or traditional child care; programs that start at birth versus those that begin at age three or four years)? Do some children benefit more than others?
3. To what extent can the effects of model programs be generalized to existing public and private programs?

These policy questions are addressed by conducting a critical review of research on the effects of ECCE on disadvantaged children with an emphasis on cognitive development. This review focuses on long-term effects because they are the subject of greatest disagreement, and it includes a variety of ECCE programs—child care, early intervention, preschool education, and Head Start. The article concludes with recommendations for future action.

Research on Immediate and Short-Term Program Effects

Hundreds of studies have examined the immediate and short-term (that is, within a year or two after children exit a program) effects of ECCE programs of various types. These studies are found in two largely separate streams of research, one on the effects of ordinary child care on children from all backgrounds and the other on the effects of ECCE programs specially designed to improve the cognitive development of economically and otherwise disadvantaged children.

Initially, research on child care focused on potential negative effects on the mother-child relationship and the child's socializa-

tion, with less attention to cognitive development. More recently, child care research has begun to examine the effects of variations in both the quality of nonparental care and the child's home environment and family circumstances. Research on programs that served disadvantaged children first emphasized their effects on cognitive development, particularly IQ, but has since expanded to examine the effects of such interventions on other aspects of cognitive development and on socialization.

Short-Term Effects of Child Care

The child care research literature presents no consistent evidence that child care per se is harmful to child development, regardless of the age at which a child begins out-of-home care.⁵⁻⁶ It does, however, indicate that variations in the quality of child care are

important determinants of the impact of child care. Higher quality child care is associated with better cognitive and social development both while children are in child care and during their first few years of school.⁵⁻⁸ (See also the article by Frede in this journal issue for a discussion of the components of quality care.)

A recent investigation found that age at entry to or years of experience in child care during the preschool years influenced the reading and math achievement of children at ages five and six, but differently for children from high- and low-income homes.⁹ For children from impoverished homes, earlier entry and/or more years in care produced a larger effect on reading scores than fewer years. Conversely, effects were negative for children in the highest-income families. The key may be differences in the quality of the children's home environments rather than income per se: children whose home environments were very highly supportive of cognitive development and socialization actually had *lower* scores if they had been in care outside their homes, while children whose home environments were relatively poor gained the most from outside care.

Short-Term Effects of Model Interventions

Several reviews of the intervention research literature have been written over the past decade.¹⁰⁻¹² The authors of those reviews conclude that programs designed for disadvantaged children, including those that are routinely provided on a large scale, can produce immediate boosts in IQ equivalent to about eight IQ points. This is a meaningful improvement in cognitive ability and can have important implications for children in terms of academic performance and placements in special education classes.

Effects of similar magnitude were found on preschool and kindergarten achievement measures. Changes of somewhat smaller magnitude were found for socio-emotional outcomes such as self-esteem, academic motivation, and social behavior immediately after the end of the intervention. On average, these effects declined over time and were negligible several years after children exited the programs. However, some programs produced sizable gains that persisted at least into the first few years of

school for IQ, achievement, and school outcomes such as grade retention and special education placement.

A variety of ECCE intervention approaches (for example, one-to-one tutoring, half-day preschool education, and child care)—some emphasizing direct instruction and others emphasizing child-initiated activities—for disadvantaged children seem to have worked equally well. However, the magnitude of the effects appears to be at least roughly related to the intensity, breadth, and amount of involvement with the children and their families.¹⁰ One specific type of intervention, home visiting (alone or in combination with a center-based program), may be relatively ineffective in directly improving children's development, although it may be more successful in improving maternal and child health, providing social support, or reducing child abuse and neglect.¹³⁻¹⁴

Since most of those reviews were written, four significant research projects have been undertaken to investigate the effects of ECCE for disadvantaged children: Project CARE, the Infant Health and Development Program (IHDP), Even Start, and the Comprehensive Child Development Program (CCDP).¹⁴⁻¹⁵ The programs are all still too new to have generated any long-term results, but their short-term results are fairly consistent with

Programs designed for disadvantaged children can produce immediate boosts in IQ equivalent to about eight IQ points.

those of earlier studies. Project CARE and IHDP, which involved high-quality center-based care, produced substantial immediate increases in IQ and some benefits in child language skills and child behavior. Even Start and CCDP, which offered weaker early childhood services for children but added parenting education or job skills training services for parents, had smaller benefits on child development but positive effects on outcomes such as parental expectations for children's academic success and enhanced utilization of other community social, health, and education services. (For additional

information about these programs, see the articles by Yoshikawa and St. Pierre and colleagues in this journal issue.)

Results of the two research literatures appear to be converging: ECCE has important impacts on cognitive development and socialization of disadvantaged children immediately and in the short term. Effects depend on program quality, and cross-study comparisons indicate that effects are larger for well-designed, intensive ECCE interventions than for ordinary child care. From some studies, it appears that the effects of ECCE programs decline over time once children leave ECCE.

Research on Long-Term Program Effects

The children in many of the studies included in the preceding summary of short-term effects of ECCE have been followed over several years to generate information about the long-term effects of ECCE. This article reviews 36 such studies, identified through computerized and manual searches of the research literature, which meet four criteria: (1) the ECCE program studied began at age four or earlier (thereby excluding stud-

ongoing, large-scale public ECCE programs. Five large-scale studies examined state or local programs (including some supported with federal Title 1 funding),³¹⁻³⁵ five studied children who had attended Head Start and state or local programs,³⁶⁻⁴⁰ and eleven examined Head Start programs.⁴¹⁻⁵¹

Model Programs

The 15 studies of model programs are identified and described in Table 1. Generally, these model ECCE programs were probably of higher quality than the large-scale public programs. They may have had more highly qualified staff, closer supervision of staff by experts, lower child-staff ratios, and smaller group size. These advantages were made possible by much higher levels of funding per child than are available to typical Head Start and public school programs. (See also the article by Frede in this journal issue.)

Services Offered

The model programs varied considerably in the services offered, their onset and duration, and when the programs operated (1962 to 1980). All but one (Verbal Interaction Project) provided classroom services. Most also offered home visits. Programs offered a range of other activities for parents, and, in three instances, these were extensive enough that they might be called parent support and development programs.^{17,19,21}

Study Participants

In all but one study, most of the participating children were African American. The exception, the Houston Parent Child Development Center, served Hispanic families. All but one program served boys and girls; the Harlem Training Project served only boys. All but two studies did not select participants on the basis of IQ; the Perry Preschool study selected children based on low IQ scores (generally below 85), and the Milwaukee program served children whose mothers had low IQs (below 75).

The average level of mother's education was under 12 years in all studies, and under 10 years in five studies.^{17-19,23,26}

Most of the children in comparison or control groups began formal education at kindergarten, but, especially in the studies conducted in later years when alternative

The model ECCE programs were probably of higher quality than the large-scale public programs.

ies of kindergarten programs); (2) the target population for the ECCE program studied was children who were economically disadvantaged; (3) at least one aspect of cognitive development, school progress, or socialization was measured after age eight (third grade or later); and (4) the research design employed a no-treatment comparison group that was reasonably similar to the group of children who participated in the intervention.

The 36 studies were divided into two categories for review based on the nature of the ECCE program and the research design. In 15 studies,¹⁶⁻³⁰ researchers developed their own ECCE programs to study the effects of exemplary, or model, programs. In 21 studies,³¹⁻⁵¹ researchers investigated the effects of

services were more widely available, a significant percentage of children in comparison groups could have attended preschool or child care programs.

Large-Scale Programs

The 21 studies of large-scale public ECCE programs are identified and described in Table 2.

Services Offered

None of the large-scale programs enrolled children before age three, and most served children part day for one school year at age four. Typically, the studies do not describe the programs so that one must depend on general knowledge about public school preschool and Head Start programs to understand the services offered. The Head Start programs had broader missions than most of the other programs; their goals included improving health and nutrition, and providing services to parents and the community.⁵² However, Head Start programs tend to have larger group sizes, pay teachers much more poorly, and may provide classes only part year.⁵³⁻⁵⁴ Classrooms tend to serve 15 to 20 children with a teacher and an aide, but there is considerable variation in the quality of educational experiences within these classrooms and in the parent involvement and other services provided.⁵³⁻⁵⁵

In three large-scale program studies, children who participated in the ECCE programs also participated in other services. In the Cincinnati Title I study, most full-day kindergarten students had attended preschool and most half-day kindergarten students had not. In both Child Parent Center (CPC) studies, services began in preschool and continued to provide enriched educational experiences through third grade. In the Florida Learning-to-Learn and Head Start study, children received intensive services through first grade.

Study Participants

In all the large-scale studies, children and their families were low income. There is considerable ethnic and geographic diversity across studies. Most children are minorities, from single-parent families, and most parents are less educated, but substantial numbers of white children, two-parent families,

and parents who are high school graduates also participated.

Research Design

The best research studies are those that are so tightly designed that one can conclude with confidence that the results obtained are due only to the intervention. In the ECCE literature, as in most, there is considerable variability in the quality of the research design, especially with respect to four key aspects of research design: (1) the ways in

Most of the large-scale programs served children part day for one school year at age four.

which the comparison groups were formed, (2) initial and follow-up sample sizes, (3) attrition, and (4) who was measured and how to assess effects of the program. Each of these aspects of study quality has important implications for the interpretation of study results. These implications are discussed briefly below, and the methodological concerns associated with each of the studies are listed in Tables 1 and 2.

Formation of Comparison Groups

Generally, the strongest research design involves identifying a pool of potential participants and then randomly assigning some children to an experimental group and some to a control or comparison group. This increases confidence that estimated effects in these studies are due to the program rather than to preexisting differences between program and comparison groups.

If random assignment is not employed, then researchers usually attempt either (1) to construct a comparison group, matched as closely as possible on a number of characteristics thought to be relevant (for example, maternal education, family income level, ethnic or racial background), or (2) to construct a comparison group but then also use statistical techniques to control for initial differences on key characteristics. Unfortunately, in neither technique is it possible to know with certainty that one has matched or controlled for all the key characteristics, and that is why random assignment, which presumably equalizes the groups initially, is

Table 1

Model Early Childhood Programs^a			
Program Name/ Related Endnote Number^b (Years of Operation)	Program Description	Ages of Participation	Research Design/ Methodological Concerns
Carolina Abecedarian ¹⁶ (1972-1985)	Preschoolers: full-day child care Schoolage: parent program	Entry: 6 weeks to 3 months Exit: 5 to 8 years	Randomized.
Houston Parent Child Development Center ¹⁷ (1970-1980)	Home visits Full-day child care Center-based program for parents	Entry: 1 to 3 years Exit: 3 to 5 years	Randomized. High attrition. ^f
Florida Parent Education Project ¹⁸ (1966-1970)	Home visits Twice weekly part-day preschool (ages 2 to 3 years)	Entry: 3 to 24 months Exit: 3 years	Initially randomized with one group, and additional control group members added at 24 months. Not randomized. ^g High attrition. School-administered tests. ^h
Milwaukee Project ¹⁹ (1968-1978)	Full-day child care Job and academic training for mothers	Entry: 3 to 6 months Exit: 5 years	Groups of 3 to 4 children assigned alternately to E and C groups. Small sample. ⁱ
Syracuse Family Development Research Program ²⁰ (1969-1975)	Home visits Full-day child care	Entry: 6 months Exit: 5 years	Matched comparison group selected at 36 months. Not randomized.
Yale Child Welfare Research Program ²¹ (1968-1974)	Home visits Full-day child care Pediatric care Developmental screenings	Entry: Prenatal Exit: 30 months	Two comparison groups for same neighborhoods for first follow-up. Matched comparison group selected for follow-up at 30 months. Not randomized. School- administered tests.
Curriculum Comparison Study ²² (1965-1967)	Part-day preschool program Kindergarten program	Entry: 4 years Exit: 5 or 6 years	Post hoc comparison group from original pool. Not randomized. School- administered tests.

Notes

- ^a Programs are grouped such that those enrolling children younger than three years old appear first, followed by those enrolling children after age three.
- ^b See the related endnotes at the end of this article for complete citations of the reports and/or studies in which program methods and outcomes are described.
- ^c Throughout Table 1, E refers to the experimental or intervention group, and C refers to the control or comparison group.
- ^d IQs were measured using the WISC or WISC-R, unless otherwise noted.
- ^e Outcomes listed as $E > C$ or $E < C$ were statistically significant at the $p < .05$ level, at least (that is, likely to have occurred by chance no more than 5 times in 100). In some instances, the difference between the E and C groups was fairly large but not statistically significant, perhaps because of small sample sizes. Such outcomes are indicated as " $E = C$, but positive trend."
- ^f Results may be biased because of high attrition rates.
- ^g Results may be biased because children were not randomly assigned to experimental and control or comparison groups.
- ^h Results may be biased because school-administered tests were used to measure achievement.
- ⁱ The small initial sample makes it difficult to demonstrate statistically significant effects of the program.

Initial Sample Size ^a	Follow-up Sample Size	Time of Follow-up	IQ ^{c16}	School Outcomes ^a
E = 57 C = 54	Age 8 E = 48 C = 42 Age 15 E = 48 E = 44	8, 12, and 15 years	Age 12 E > C E = 93.7 C = 88.4 Age 15, E = C E = 95.0 C = 90.3	Achievement tests: E > C at age 15 Special education: E < C at age 15 E = 24%, C = 48% Grade retention: E < C at age 15 E = 39%, C = 59%
E = 97 C = 119	School data E = 50 C = 87 IQ data E = 39 C = 78	Grades 2 to 5	Not measured	Achievement tests: E = C, but positive trend Grades: E = C Bilingual education: E < C E = 16%, C = 36% Special education: E = C in grades 2 to 5 E = 27%, C = 31% Grade retention: E = C in grades 2 to 5 E = 16%, C = 29%
E = 288 C = 109	E = 83 C = 24	Grades 4 to 7	E = C (grades 4 to 7) E = 83.1 C = 79.8	Math achievement: E > C Reading achievement: E = C Special education: E < C, grade 7 E = 23%, C = 54% Grade retention: E = C, grade 7 E = 28%, C = 29%
E = 20 C = 20	E = 17 C = 18	Grade 4 Grade 8	Grade 8: E > C E = 101 C = 91	Achievement tests: E = C, but positive trend Grades: E = C Special education: E = C E = 41%, C = 89% Grade retention: E = C, grade 4 E = 29%, C = 56%
E = 82 C = 72	Parents E = 52 C = 42 Children E = 49 C = 39	Grades 7 to 8	E = C, age 5 on Stanford-Binet	Teacher ratings: E > C, but for girls only Grades: E > C, but for girls only Attendance: E > C, but for girls only
E = 18 C = 18 only	Age 7 to 8 E = 17 C1 = 33 C2 = 31 Age 10 E = 16 C = 16	Age 7 to 8 and age 10	E = C at age 10	Achievement tests: E = C Attendance: E > C Teacher ratings: E = C, but positive trend for boys Special education: E = C, but positive trend for boys only E = 25%, C = 50%
E = 244 C = 68	E = 168 C = 51	Post high school	Not measured	Special education: E = C, grade 12 E = 32%, C = 63% Grade retention: E = C, grade 12 E = 26%, C = 58% High school graduation: E = C

Table 1 (continued)

Model Early Childhood Programs^a			
Program Name/ Related Endnote Number^b (Years of Operation)	Program Description	Ages of Participation	Research Design/ Methodological Concerns
Early Training Project ²³ (1962-1967)	Home visits Summer part-day preschool program	Entry: 4 to 5 years Exit: 6 years	Randomized. School-administered tests.
Experimental Variation of Head Start ²⁴ (1968-1969)	Preschool program	Entry: 4 years Exit: 5 years	Post hoc comparison group from same communities. Not randomized. High attrition. School-administered tests.
Harlem Training Project ²⁵ (1966-1967)	One-to-one tutoring or child-directed play	Entry: 2 to 3 years Exit: 4 years	Comparison group recruited from children born 1 to 2 months later. Not randomized. School- administered tests.
High/Scope Perry Preschool Project ²⁶ (1962-1967)	Home visits Preschool program	Entry: 3 to 4 years Exit: 5 years	Randomized.
Howard University Project ²⁷ (1964-1966)	Preschool program	Entry: 3 years Exit: 5 years	Comparison group from neighboring tracts. Not randomized.
Institute for Developmental Studies ²⁸ (1963-1967)	Home visits Part-day preschool program Parent center school (K-3)	Entry: 4 years Exit: 9 years	Randomized. High attrition. School- administered tests.
Philadelphia Project ²⁹ (1963-1964)	Home visits Part-day preschool program	Entry: 4 years Exit: 5 years	Matched comparison group from same kindergarten classes. Not randomized. School- administered tests.
Verbal Interaction Project ³⁰ (1967-1972)	Home visits	Entry: 2 to 3 years Exit: 4 years	Six groups with three matched comparison groups. Not randomized.

Notes

- ^a Programs are grouped such that those enrolling children younger than three years old appear first, followed by those enrolling children after age three.
- ^b See the related endnotes at the end of this article for complete citations of the reports and/or studies in which program methods and outcomes are described.
- ^c Throughout Table 1, E refers to the experimental or intervention group, and C refers to the control or comparison group.
- ^d IQs were measured using the WISC or WISC-R, unless otherwise noted.
- ^e Outcomes listed as E > C or E < C were statistically significant at the p < .05 level, at least (that is, likely to have occurred by chance no more than 5 times in 100). In some instances, the difference between the E and C groups was fairly large but not statistically significant, perhaps because of small sample sizes. Such outcomes are indicated as "E = C, but positive trend."

Initial Sample Size ^a	Follow-up Sample Size	Time of Follow-up	IQ ^{c,d}	School Outcomes ^e
E = 44 C = 21	E = 36 C = 16	Post high school	E = C at age 17 E = 78.7 C = 76.4	Achievement tests: E = C Special education: E < C, grade 12 E = 5%, C = 29% Grade retention: E = C E = 58%, C = 61% High school graduation: E = C E = 68%, C = 52%
E = 116 C = 24	E = 102 C = 19	Post high school	E > C at age 13 E = 85.0 C = 91.0	Achievement tests: E = C, but positive trend Special Education: E = C, grade 7 E = 13%, C = 15% Grade retention: E = C, grade 7 E = 10%, C = 16%
E = 244 C = 68	E = 168 C = 51	Grade 7	E = C at age 12 E = 92.1 C = 88.9	Math achievement: E > C Reading achievement: E < C Grade retention: E < C, grade 7 E = 30%, C = 52%
E = 58 C = 65	E = 58 C = 65	Post high school	E = C at age 14 E = 81.0 C = 81.0	Achievement tests: E > C Grades: E > C Special education: E = C, grade 12 E = 37%, C = 50% Grade retention: E = C, grade 12 E = 15%, C = 20% High school graduation: E > C E = 67%, C = 49%
E = 38 C = 69	E = 30 C = 69	Grade 4	Not measured	Grade retention: E = C E = 33%, C = 47%
E = 312 C = 191	E = 63 C = 34	Grade 7	Not measured	Special education: E = C E = 0%, C = 13% Grade retention: E = C E = 23%, C = 43%
E = 60 C = 53	E = 44 C = 37	Post high school	E > C at age 10 on Stanford-Binet E = 98.4 C = 91.7	Achievement tests: E = C, but positive trend Special education: E = C, grade 12 E = 5%, C = 6% Grade retention: E = C, grade 12 E = 38%, C = 53%
E = 111 C = 51	E = 79 C = 49	Grade 3	E > C at grade 3 E = 101.9 C = 93.6	Achievement tests: E > C Special education: E > C, grade 7 E = 14%, C = 39% Grade retention: E = C, grade 7 E = 13%, C = 52%

usually thought to be the most rigorous methodological approach.

Of the 36 studies included in this review, 7 of the 15 model program studies formed comparison groups by random assignment.⁵⁶ None of the 21 large-scale public program studies used random assignment.

Sample Size

Researchers commonly use statistical tests of differences between groups to estimate the likelihood that findings are due to the intervention rather than to chance. These tests can help determine whether the same effects could be reproduced for the whole target population. A general principle behind all of these tests is that it is much harder to demonstrate a "statistically significant" difference between groups (usually defined as a result that would occur by chance no more than 5 times out of 100) when there are only a few participants than when there are many.

Among the evaluations of model programs included in this review, two experimental studies (Milwaukee and the Early Training Project) began with extremely small sample sizes which provided these studies with very little statistical power to

original target population. If treatment and comparison groups lose comparability, the benefits of random assignment are lost, and the results of a comparison can be totally misleading.

Among the model programs in this review, four had attrition rates so high that initial random assignment could have been invalidated.^{17,18,29,28} Among the large-scale public programs, attrition appears to have been a substantial problem for at least six programs.^{39,37,43-46}

Measurement Issues

Researchers must make sure that the tests they use to measure outcomes are administered accurately and fairly to all participants in the study. In many studies of early childhood programs, especially studies of large-scale programs, standardized tests routinely administered by schools often served as the source of achievement test data for follow-up. Although this strategy provided data at low cost, it had several unfortunate consequences, including (1) less uniformity of test administration and (2) lost data because schools used different tests from year to year, and not all children—especially those who were retained in grade or in special education programs—were tested.

Studies that relied on school-administered tests would, at best, have less reliable test scores and smaller sample sizes. At worst, they would systematically have lost more poorly performing students from each year as the cumulative percentage of children retained in grade and placed in special education increased. Even when studies administered their own achievement tests, other research design flaws sometimes produced a similar distortion of achievement comparisons over time.^{49,51} The effect on these studies would be to gradually "erase" any differences between program and comparison groups with achievement test data as grade level increased.

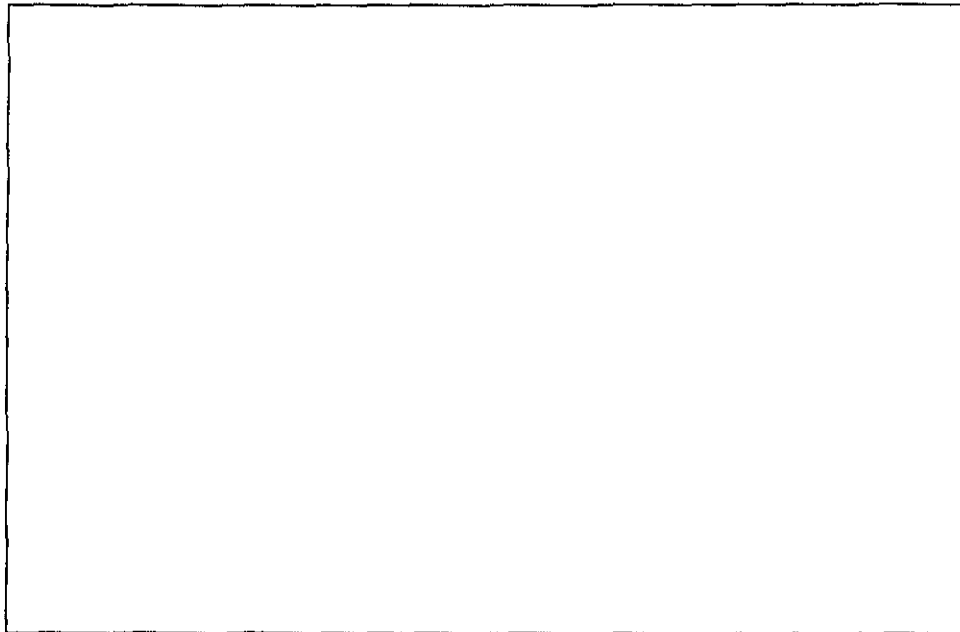
Among the studies reviewed, measurement problems affect all of the large-scale program studies³¹⁻⁵¹ and at least four model program studies.^{18,21,28,30} It is important to note that measurement problems do not affect the other findings reported in those studies, such as effects

None of the 36 studies reviewed is perfect; however, it is important to look at the overall picture.

detect even fairly large effects. The large-scale studies, just because more children are involved, are at an advantage in having greater statistical power to detect effects of the services offered.

Attrition

Attrition (loss of study participants over time) can be a serious problem for any study. First, because attrition means that fewer participants remain, it reduces a study's statistical power to detect effects. Second, it reduces confidence that (a) the final sample is comparable to the initial sample and (b) the final program and comparison groups are comparable to each other. If the final sample differs substantially from the original, the results might not generalize to the



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on grade retention and special education placement.

In sum, none of the 36 studies reviewed in this article is perfect. However, while it is important to acknowledge their weaknesses and, perhaps, weigh studies of varying quality differently, it is also important to look at the overall picture. Each of these studies is a valuable addition to the literature and should be reviewed with an eye toward what it adds to our overall understanding of the effects of ECCE programs.

Long-Term Study Findings

This section discusses the long-term effects on cognitive development, school success, and socialization reported by each study. The results of each study's longest follow-up are reported in Tables 1 and 2 (for model program and large-scale program studies, respectively) for outcome measures that are easily compared across studies—IQ, achievement, grade retention, special education placement, and high school graduation. After the discussions of each type of outcome, two key issues are discussed across all outcomes: Did effects vary by characteristics of the children served (for example, by age, ethnicity, or gender)? Did effects vary with program characteristics?

Effects on IQ

Although the general public tends to think of intelligence as native cognitive ability

(how smart you are) and of IQ tests as measuring intelligence, there is considerable disagreement among experts about what constitutes intelligence, the extent to which its development is influenced by the environment, and what IQ tests measure.⁵⁷ There are doubts about how completely and accurately IQ tests measure general intellectual ability. Nevertheless, researchers often used IQ scores to gauge the success of programs, and those results are reported in the following section.

Model Programs

All of the model program studies reported IQ gains at some point during or after children's program participation. In most instances, effects were sustained until school entry at age five, at which time 10 studies reported effects between 4 and 11 IQ points,^{16,18,21,28-30,37-40} the Milwaukee study reported a gain of 25 points, and the Syracuse study reported no effect. Three studies did not measure IQ at school entry.^{17,22,27}

IQ effects persisted the longest (into adolescence) in the two experimental studies that enrolled infants in full-day educational child care programs (Milwaukee and Abecedarian). Although two other studies that enrolled infants did not find persistent IQ effects, both were quasi-experimental^{20,21} and one ceased serving children before age three.²¹

Table 2

Large-Scale Public Early Childhood Programs ^a			
Program Name ^b (Years of Operation)	Ages of Participation	Design	Initial Sample Size ^c
Child-Parent Center ³¹ (1965-1977)	Entry: 3 or 4 years Exit: 9 years	Compared former CPC children with non-CPC children from same feeder schools.	E = 684 C = 304
Child-Parent Center II ³² (1983-1985)	Entry: 3 or 4 years Exit: 9 years	Compared former CPC children with several other groups.	Unknown
Cincinnati Title I Preschool ³³ (1969-1970; 1970-1971)	Entry: 4 or 5 years Exit: 6 years	Compared children who attended full-day kindergarten and mostly had preschool with children who attended half-day kindergarten and mostly had no preschool.	E = 688 C = 524
Maryland Extended Elementary Pre-K ³⁴ (1977-1980)	Entry: 4 years Exit: 5 years	Compared attenders to nonattenders, including only children continuously enrolled in school district (kindergarten to grade 5).	Unknown
New York State Experimental Prekindergarten ³⁵ (1975-1976)	Entry: 3 or 4 years Exit: 5 years	Compared attenders with children in same district on waiting list and with children in other districts with no prekindergarten program.	1,800 ^d
Detroit Head Start and Title I Preschool ³⁶ (1972-1973)	Entry: 4 years Exit: 5 years	Compared children who had attended Head Start or Title I preschool with children who were eligible but did not attend.	Unknown
DC Public Schools and Head Start ³⁷ (1986-1987)	Entry: 4 years Exit: 5 years	Compared children who attended public school preschool or Head Start with children in same kindergartens who had not.	E = 372 C = 89
Florida Learn to Learn and Head Start ³⁸ (1986-1987)	Entry: 4 years Exit: 5 years	Compared children who attended LTL preschool or Head Start at age 4 (E) with children who started school in kindergarten (C).	E = 45 C = 45
Philadelphia School District Get Set and Head Start ³⁹ (1969-1970; 1970-1971)	Entry: 4 years Exit: 5 years	Compared children in enriched K-3 program (follow-through) who had and had not attended preschool.	E = 1,082 C = 1,615

Notes

^a Programs are grouped such that public school program studies are listed first, followed by program studies involving both public school programs and Head Start, and then all Head Start studies.

^b See the related endnotes at the end of this article for complete citations of the reports and/or studies in which program methods and outcomes are described.

^c Throughout Table 2, E refers to the experimental or intervention group, and C refers to the control or comparison group.

^d Outcomes listed as E > C or E < C were statistically significant at the p < .05 level, at least (that is, likely to have occurred by chance no more than 5 times in 100). In some instances, the difference between the E and C groups was fairly large but not statistically significant, perhaps because of small sample sizes. Such outcomes are indicated as "E = C," but positive trend.

^e Results may be biased because children were not randomly assigned to experimental and control or comparison groups.

^f No pretest was given to assess/control for initial differences between groups.

^g Results may be biased because school-administered tests were used to measure achievement.

^h Results may be biased because of high attrition rates.

ⁱ Design flaws bias the estimated effect of the program on children's achievement toward zero.

^j The numbers of children in experimental and comparison groups were not reported separately.

Follow-up Sample Size	Time of Last Follow-up	School Outcomes ¹	Methodological Concerns
E = 513 C = 244	Post high school	Achievement tests: E > C at grade 2 E = C at grade 8 High school graduation: E > C E = 62%, C = 49%	Not randomized. ^a No pretest. ^f School-administered tests. ^g
E = 757 C = 130	Grade 7	Achievement tests: E > C for grades K to 7 Special education: E < C E = 12%, C = 22% Grade retention: E < C E = 24%, C = 34%	Not randomized. No pretest. School-administered tests.
E = 410 C = 141	Grade 8	Achievement tests: E > C for grades 1, 5, and 8 Special education: E = C, grade 8 E = 5%, C = 11% Grade retention: E = C, grade 8 E = 9%, C = 12%	Not randomized. No pretest. School-administered tests.
E = 356 C = 306	Grade 8	Achievement tests: E > C for grades 3, 5, and 8 Special education: E < C, grade 8 E = 15%, C = 22% Grade retention: E < C, grade 8 E = 31%, C = 45%	Not randomized. No pretest. High attrition. ^h School-administered tests.
E = 1,348 C = 258	Grade 3	Achievement tests: E > C in kindergarten E = C in grade 1 Special education: E = C E = 2%, C = 5% Grade retention: E < C E = 16%, C = 21%	Not randomized. High attrition.
Unknown	Grade 4	Achievement tests: E > C in grade 4	Not randomized. No pretest. School-administered tests. Bias toward no effect. ⁱ
E varies C varies	Grades 4 and 5	Achievement tests: E = C in grades 3 to 5 Special education: E = C, grade 4 E = 10%, C = 9% Grade retention: E = C, grade 4 E = 31%, C = 38%	Not randomized. Bias toward no effect. High attrition.
E = 44 C = 39	Grade 6	Achievement tests: E = C Special education: E = C Grade retention: E = C	Not randomized. No pretest.
E = 688 C = 524	Grades 4 to 8, varies by cohort	Achievement tests: E = C Grade retention: E > C	Not randomized. No pretest. Bias toward no effect. High attrition. School-administered tests.

Table 2 (continued)

Large-Scale Public Early Childhood Programs^a			
Program Name^c (Years of Operation)	Ages of Participation	Design	Initial Sample Size^d
Seattle DISTAR and Head Start ⁴⁰ (1970-1971)	Entry: 4 years Exit: 5 years	Compared children who had attended Head Start and DISTAR with matched children from same school and grades.	E = 92 C = unknown
Cincinnati Head Start ⁴¹ (1968-1969)	Entry: 4 years Exit: 5 years	Compared third graders who had attended Head Start with those who had not.	Unknown
Detroit Head Start ⁴² (1969-1970)	Entry: 4 years Exit: 5 years	Compared children who had attended Head Start with children in Title I elementary programs.	Unknown
ETS Longitudinal Study of Head Start ⁴³ (1969-1970; 1970-1971)	Entry: 4 or 5 years Exit: 5 or 6 years	Compared children who went to Head Start with children who went to other preschools or no preschool.	1,875
Hartford Head Start ⁴⁴ (1965-1966)	Entry: 4 years Exit: 5 years	Compared children who had attended Head Start with those who had not.	293
Kanawha County, West Virginia Head Start ⁴⁵ (1973-1974)	Entry: 4 years Exit: 5 years	Compared children who had attended Head Start with low-income children who had not.	Unknown
Montgomery County, Maryland Head Start ⁴⁶ (1970-1971; 1974-1975; 1978-1979)	Entry: 4 years Exit: 5 years	Compared children who had attended eight or nine months with those who had attended one month or less.	E = 1,915 C = 619
NBER-NLSCM Head Start ⁴⁷ (1979-1989)	Entry: 3 to 5 years Exit: 5 to 6 years	Compared children who had attended Head Start with those who had not.	Unknown
New Haven Head Start ⁴⁸ (1968-1969)	Entry: 4 years Exit: 5 years	Compared children who attended Head Start with those who had not.	E = 61 C = 48
Pennsylvania Head Start ⁴⁹ (1986-1987)	Entry: 3 to 5 years Exit: 5 to 6 years	Compared children who attended Head Start with children who had applied but had not been admitted.	E = 98 C = unknown
Rome, Georgia, Head Start ⁵⁰ (1966)	Entry: 5 years Exit: 6 years	Compared children who attended Head Start with all children in first grade in disadvantaged schools in 1966.	E = 130 C = 88
Westinghouse National Evaluation of Head Start ⁵¹ (1965-1966)	Entry: 4 or 5 years Exit: 5 or 6 years	Compared children who attended Head Start with those who did not (matched within grade).	Unknown

Notes

^a Programs are grouped such that public school program studies are listed first, followed by program studies involving both public school programs and Head Start, and then all Head Start studies.

^b See the related endnotes at the end of this article for complete citations of the reports and/or studies in which program methods and outcomes are described.

^c Throughout Table 2, E refers to the experimental or intervention group, and C refers to the control or comparison group.

^d Outcomes listed as E > C or E < C were statistically significant at the p < .05 level, at least (that is, likely to have occurred by chance no more than 5 times in 100). In some instances, the difference between the E and C groups was fairly large but not statistically significant, perhaps because of small sample sizes. Such outcomes are indicated as "E = C, but positive trend."

Follow-up Sample Size	Time of Last Follow-up	School Outcomes ^d	Methodological Concerns
E = 44 C = 20	Grades 6 and 8	Achievement tests: E = C, but positive trend, in grades 6 and 8	Not randomized. No pretest. High attrition. School-administered tests
Unknown	Grade 3	Achievement tests: E = C in grade 3	Not randomized. No pretest. Bias toward no effect.
Unknown	Grade 4	Achievement tests: E > C in grade 4	Not randomized. No pretest. School-administered tests. Bias toward no effect.
852	Grade 3	Achievement tests: E > C in grade 1 E = C in grades 2 and 3	Not randomized. High attrition. Bias toward no effect.
E = 148 C = 50	Grade 6	Achievement tests: E = C in grade 6 Special education: E = C E = 5%, C = 10% Grade retention: E < C E = 10%, C = 22%	Not randomized. No pretest. High attrition. School-administered tests.
Unknown	Grade 3	Achievement tests: E = C in grade 3	Not randomized. No pretest. School-administered tests. Bias toward no effect.
E = 186 C = 112	Grade 11	Achievement tests: E = C, but negative trend in most grades E > C in grade 11	Not randomized. Possibly no pretests. High attrition. School achievement tests.
E = 747 C = 1,810	Grade varies	Achievement tests: E = C Grade retention: E > C, whites only	Not randomized. No pretest.
E = 35 C = 26	Grade 3	Achievement tests: E > C in grade 1 E = C in grade 3 Grade retention: E < C E = 18%, C = 35%	Not randomized. No pretest. High attrition. Bias toward no effect.
E = 64 C = 18	Grade 3	Achievement tests: E = C, but positive trend, in grades 2 and 3	Not randomized. No pretest.
E = 94 C = 60	Post high school	Achievement tests: E > C in grade 5 E = C in grades 6 and above Special education: E < C E = 11%, C = 25% Grade retention: E = C E = 51%, C = 63%	Not randomized. No pretest. School-administered tests.
E = 1,988 C = 1,992	Grades 1 to 3	Achievement tests: E > C in grade 1 E = C in grades 2 and 3	Not randomized. No pretest. Bias toward no effect.

Large-Scale Programs

Only one of the large-scale program studies provided IQ data using tests comparable to those used in the model program studies.⁴⁴ A small number of studies^{35,43,48} provided results on a test of language ability, and another⁵¹ administered a test of cognitive ability. In any event, only one large-scale program study found effects on these various tests of linguistic or cognitive ability after children exited ECCE and entered school.⁴⁷

Effects on Achievement

Achievement tests measure ability and knowledge in the subjects of reading and mathematics. Compared with IQ tests, they are more focused on academic accomplishment and the acquisition of what is taught in school.

Model Programs

Estimated effects on standardized achievement tests varied among the model program studies. Five of 11 studies with achievement test data found statistically significant positive effects beyond third grade.^{16,18,25,26,30} Evidence of effects was strongest among the experimental stud-

The findings constitute overwhelming evidence that ECCE can produce sizable improvements in school success.

ies that had used random assignment to form comparison groups. Achievement effects were found through second grade (Milwaukee), fourth grade (Florida), and into junior high school (Abecedarian and Perry). In contrast, only one of the quasi-experimental studies of model programs found long-term effects on achievement.³⁰

Large-Scale Programs

The achievement test results of the large-scale program studies were quite variable. Four found no effects at any time.^{37,41,45,47} Five found initial effects that faded and ceased to be statistically significant by the end of third grade.^{35,39,43,48,51} The others found statistically significant effects in third grade or later, though the patterns of effects over time are variable.

The variation in findings with respect to achievement could be the result of (1) the basic design weakness of quasi-experimental studies, (2) exceptionally high attrition rates for achievement test data that both reduced sample size and biased comparisons toward finding no effect,^{33,39,44} or (3) some of the measurement problems described in the section above.^{43,48,51}

Effects on School Progress and Placement

School outcomes were also measured by rates of grade retention, special education, and high school graduation.

Grade Retention and Special Education in Model Programs

Across all studies, the findings were relatively uniform and constitute overwhelming evidence that ECCE can produce sizable improvements in school success. All but one of the model program studies reported grade retention and special education rates, and in all of these the rates are lower for the program group. The one model program study that did not report rates (Syracuse) simply reported that there was no statistically significant difference. The estimated effects for the model programs are not always statistically significant given the small sample sizes; but in most instances, they are large enough to be of practical importance. Despite small sample sizes, statistical significance on one or the other was found in five model program studies,^{16,18,21,23,30} and another, the Perry Preschool study, found significant effects on the rate of placement for mild mental retardation and for number of years of special education.

Grade Retention and Special Education in Large-Scale Programs

Statistically significant effects on grade retention or special education were found in 8 of the 10 large-scale program studies that collected relevant data. The failure to find significant effects in two studies appears to be the result of relatively low rates of retention and special education placement in the community as a whole (Cincinnati Title I) and/or initial differences between the groups (Washington, DC). Both of these circumstances would make it harder to demonstrate a difference between the experimental and comparison groups.³⁷

High School Graduation

Three model program studies and two large-scale program studies had sufficiently long follow-ups to assess effects on high school graduation rates.^{22,23,26,31,50} All five estimated that ECCE had a large effect on the graduation rate, though only the three studies with larger sample sizes found the effect to be statistically significant. However, added support is provided by the other studies that find effects on achievement, grade retention, or special education placement—all of which are predictive of high school graduation.^{26,58,59}

Effects on Socialization

Although the primary focus of long-term studies of ECCE has been on cognitive development and school success, socialization (the learning and adoption of socially accepted values and behavior) has received some attention, particularly in the model program studies.

Increased aggression at school entry had been found for three studies in which children began child care as infants,^{20,21,60} but there is no evidence that this aggression persisted. Indeed, two of those studies found that program children had better classroom behavior later,^{20,21} and two other studies reported that children were rated by elementary school teachers as better adjusted socially.^{17, 49} Two studies found no significant effects on primary grade teacher ratings of classroom behavior.^{18,26}

Long-term positive effects on socialization were evident not only in teacher ratings, but also in parent ratings in one study²⁰ and in data on delinquency and crime in the only two studies that sought these out.^{20,26} In addition, several model ECCE programs were found to increase pride in school achievement.⁶¹ The Perry Preschool study provides the longest and most intensive follow-up study of effects on socialization.²⁶ It found that ECCE was associated with increased commitment to school, better relationships with friends and neighbors, greater adult economic success, and, for girls, increased marriage and fewer out-of-wedlock births. (For further review of this set of outcomes, especially effects on crime and delinquency, see the article by Yoshikawa in this journal issue.)

Child Characteristics and Effects

One of the most important policy questions is whether ECCE programs appear to have different effects on different groups of children. This sort of question usually can be addressed by examining the results within a study (if the researcher actually compared groups of children) or by examining results across studies that served different groups of children.

In general, there do not appear to be large variations in effects for children from low-income families, though this question has not received much attention. Outside this range, family income becomes relevant; the same effects would not be expected for children from higher-income families whose development is not impacted by poverty.

One possible exception to this general rule is gender. Four experimental studies of model programs (Abecedarian, Houston, Perry, Early Training Project) found larger effects on achievement test scores for low-income girls than boys, though the differences were not necessarily statistically sig-

Four experimental studies of model programs found larger effects on achievement test scores for low-income girls than boys.

nificant. Two of these studies found that graduation rates were higher for girls than for boys (Perry, Early Training Project). Results of the quasi-experimental studies of model programs are less consistent with this picture, and none of the large-scale studies which explicitly tested for gender differences found any.

While it is true that these reported gender differences could be statistical flukes, the findings occur with enough consistency in some of the best quality studies that it is reasonable to conclude that the possibility of gender differences warrants further attention.

Program Characteristics and Effects

Another important policy question is whether particular types of programs or constellations of services appear to be more

effective than others. Again, one can try to answer this question by examining results both within and across studies.

Comparison of Model Programs with Community Child Care

Of the 36 studies in the review, only the Abecedarian study investigated the potential effects of the comparison group's participation in other forms of ECCE.⁶² Comparison group children who had attended community ECCE programs that met federal guidelines for quality⁶³ were found to have higher IQ scores than comparison group children with little or no ECCE experience. The estimated effect at school entry was roughly half the size of the effect of the Abecedarian program.

Head Start and Other Early Childhood Programs

Another issue addressed by some within-study comparisons is the relative effectiveness of Head Start compared with other ECCE programs, usually public school preschool programs. Public school programs might be thought to be more effective because they pay much higher salaries than Head Start and can attract better-

nificant effects from earlier entry (for example, from entry at age two rather than three years).⁶⁴ Unfortunately, these studies tended to have such small sample sizes and such high attrition that only very large effects could have been detected, and the results cannot be considered very conclusive. The Child Parent Center II study³² was the only other study to estimate the long-term effects of variations in age of entry, and it found no advantage for children who entered at age three compared with children who entered at age four.

Effectiveness of Add-on Schoolage Services

Intuitively, it makes sense that, if preschool is good for children, then continuing to provide them with enhanced services during their subsequent school years ought to be even better. Two studies provide information about the effects of such extended elementary programs.

In the Abecedarian study, half of the program and control groups were randomly assigned to a special schoolage program at age five, enabling the researchers to compare the effects of ECCE alone, ECCE plus an enriched schoolage program, the schoolage program alone, and no intervention. The schoolage program was provided for the first three years of elementary school and consisted of biweekly home visits in which teachers provided individualized supplemental activities in partnership with parents and social supports for families. By adolescence the results were clear. Substantial effects on IQ, achievement, and school progress were produced by ECCE alone. The schoolage program was largely ineffective and, as an add-on to ECCE, had no effects on IQ and only mixed effects on school success and achievement.

In contrast, the CPC II study found that enriched elementary school services added substantially to the effects of ECCE, with the size of the effect increasing directly with the number of years of enhanced elementary services. One possible explanation for the difference in results between the Abecedarian and the CPC II studies is that the two research teams studied different programs. While the Abecedarian program was a modest supplement to the children's school experience, the CPC II program

To have any effect at all, schoolage services must be more than add-ons to a preschool program.

qualified staff, but Head Start offers a broader range of services. The studies reviewed here all reported smaller effects for Head Start.^{32,36,38,39} Of course, Head Start children tend to be more disadvantaged; therefore, with one exception, these comparisons could be affected by preexisting differences between the two populations. The exception, a study that randomly assigned children to either a model program which continued through first grade or to Head Start, found that the model program produced a larger effect on long-term achievement.³⁸

Age of Entry into the ECCE Program

A number of the older model program studies were designed to investigate the effects of age of entry and duration of services on child development.^{18,23,25,30} None found sig-

changed the elementary school in marked ways: classes were smaller, additional classroom and support staff were added, and parent involvement was emphasized. An alternative explanation is that the parents who sought out and continued participation in CPC II somehow differed from those who did not (that is, they differed from the control group), and it is those differences rather than the intervention that led to the observed benefits.

In any event, it seems clear that, to have any effect at all, schoolage services must be more than add-ons to a preschool program. These services must actually change the learning environment in some significant ways before they can be expected to produce benefits in addition to those produced by ECCE.

Conclusions

Many studies have investigated the long-term effects of preschool programs on disadvantaged children, but they are far from equal in their capacity to inform public policy. One conservative view of the literature would be that only two studies provide sufficiently valid estimates of the effects of ECCE—the Abecedarian and Perry Preschool studies. The other experiments are impaired by various methodological problems such as small sample size, attrition, and selection bias.

Of course, this is much too narrow a view. The Abecedarian and Perry programs each served African-American children in small cities, so focusing on them limits the conclusions that we can draw to those populations. The other studies can add a great deal to our understanding of ECCE programs in terms of types of programs, populations served, and social and historical context. Thus, information from these other studies may and should be used to supplement the information from the stronger studies, especially if their short-term findings, at least, are consistent with those of existing experiments.

It is from this perspective that the concluding section returns to the policy questions posed at the beginning of this article.

What Are the Effects of ECCE and How Long Do They Persist?

The weight of the evidence establishes that ECCE can produce large effects on IQ dur-

ing the early childhood years and sizable persistent effects on achievement, grade retention, special education, high school graduation, and socialization. In particular, the evidence for effects on grade retention and special education is overwhelming. Evidence is weaker for persistent achievement effects, but this weakness is probably the result of flaws in study design and follow-up procedures. Evidence for effects on high school graduation and delinquency is strong but based on a smaller number of studies.

These effects are large enough and persistent enough to make a meaningful difference in the lives of children from low-income families: for many children, preschool programs can mean the difference between failing and passing, regular or special education, staying out of trouble or becoming involved in crime and delinquency, dropping out or graduating from high school.

Do Effects Vary with the Population Served or Type of Program?

Benefits from ECCE programs appear to be produced via a number of different types of programs and across a number of different groups of children. Indeed, the best predictor of the size of program effects may be the size of the gap between the program and

Preschool programs can mean the difference between failing and passing, regular or special education, or staying out of trouble.

home as learning environments, rather than whether a child is a member of a particular group. Thus, effects might be expected to be largest for the most disadvantaged, though there is no evidence that meaningful effects cease if a child's family moves above the poverty line. Indeed, there is even some suggestion at the other end of the income spectrum that children from very well-off families may suffer from ECCE inferior to that provided by their homes.

The most interesting hint with respect to variations in effects with child characteristics is that long-term effects on educational

achievement and attainment might be greater for girls than for boys. The reason is unclear, but because boys from low-income families fare so poorly in the educational system (twice as many boys as girls are in special education), further research on this topic is warranted. Possibly, teaching methods could be altered in ECCE or in elementary schools to better accommodate the needs of these boys.

With respect to program characteristics, evidence about when programs should begin and how long they should last is mixed. The notion that development is more easily influenced earlier suggests that earlier programs should have larger effects. This notion is confirmed by cross-study comparisons but receives little support from within-study comparisons. One possible explanation for the apparent contradiction is that within-study comparisons have tended to look at very limited age differences such as the effect of beginning at three rather than four years of age. The more important difference may be between beginning in infancy versus beginning later. Also, research on brain development indicates that the same effects on brain development can produce different effects on cognitive and social development depending on the age at which they occur.⁶⁵ Thus, ECCE beginning with infants and continuing to kindergarten may be required to produce persistent effects on IQ and may produce larger effects on academic success and, perhaps, on socialization as well.

Guidance with respect to the effects of enriched elementary school programs is limited and mixed. Despite the intuitive appeal of the idea that fade-out in the benefits of ECCE might occur without prolonged intervention, the empirical support for this view is extremely weak. Fade-out is more apparent than real for all measures except IQ; prolonged effects on achievement, school success, and socialization occur without schoolage intervention. The only direct support for the need for prolonged, schoolage intervention comes from a single quasi-experimental study.³² However, improvements in elementary education for children who attend poor quality schools would be expected to contribute independently to child development including IQ, achievement, and school success and might be a way

to improve long-term educational outcomes for boys.⁶⁶

To What Extent Can Findings Be Generalized to Existing Public and Private Programs?

Research supports the view that large-scale public ECCE programs *can* produce long-term cognitive and academic benefits for disadvantaged children. Comparison of estimated long-term effects between model programs and large-scale programs indicates that the latter tend to have smaller effects, perhaps because model programs provided higher quality services than many of the large-scale public programs. Of course, the extent to which the large-scale public programs that were studied accurately reflect today's large-scale public programs generally is unknown. Nevertheless, there is a risk that today's public programs will not produce the desired benefits because they are lower in quality (larger classes, fewer staff members, less educated staff, poorer supervision) than the model programs.

Cross-study and within-study comparisons suggest that Head Start has been less effective than better-funded public school programs, although these comparisons suffer from methodological problems that reduce confidence in the results. Nevertheless, these findings are consistent with the view that quality matters, a view recently endorsed explicitly by a national panel examining the future of Head Start.⁶⁷

Costs, Benefits, and Financing

It should be evident that ECCE can produce substantial improvements in the cognitive development and educational success of disadvantaged children. The best-known source of support for this view, the Perry Preschool study, does not stand alone, and its effects are not unusually large. Much larger effects might be produced by the Abecedarian program model. From this perspective, the benefit-cost analysis of the Perry Preschool program provides a conservative estimate of the potential returns to public investment in ECCE.⁶⁸ Results of this benefit-cost analysis are presented in Table 3.

As can be seen in Table 3, the present value of benefits (the current value of a future stream of costs of benefits)⁶⁹ of the

Table 3

Present Value of Costs and Benefits per Child in 1990 Dollars Discounted at a Real Rate of 3%			
Cost or Benefit	Recipients of Costs and Benefits		
	Whole Society	Preschool Participants	General Public
Preschool Cost^a	-\$ 12,356	\$ 0	-\$ 12,356
Measured Benefits			
Child Care	738	738	0
K - 12 Education	6,872	0	6,872
Adult Education	283	0	283
College ^b	-868	0	-868
Employment ^c	14,498	10,269	4,229
Crime	49,044	0	49,044
Welfare	219	-2,193	2,412
Benefit Subtotal	\$ 70,876	\$ 8,814	\$ 61,972
Projected Benefits			
Earnings	15,833	11,215	4,618
Crime	21,337	0	21,337
Welfare	46	-460	506
Total Benefits	\$108,002	\$ 19,569	\$ 88,433
Net Present Value	\$ 95,646	\$ 19,569	\$ 76,077

^a Costs and cost increases appear as negative numbers.

^b Some small portion of college costs is likely to have been borne by the participants, but this could not be estimated from the available information.

^c The benefits reported for employment include all costs paid by the employer to hire a participant. Allocation to participants and the general public assume that: (1) the marginal tax rate is 25%, (2) the value of fringe benefits received by the employee equals 10% of salary, and (3) the value of other fringe benefits paid by the employer (for example, the employer's share of Social Security payments) equals 10% of salary.

Perry program greatly exceeded costs for both program participants and the general public. This is true even if all benefits from reductions in delinquency and crime were totally omitted. The national cost of failing to provide at least two years of quality ECCE is extremely high, on the order of \$100,000 for each child born into poverty, or \$400 billion for all poor children under five today.^{68,70} An immediate and substantial increase in public support for ECCE is warranted, therefore, on economic grounds alone. However, the appropriate public policy response is more complex than provid-

ing two years of quality Head Start to every poor child.

Thirty years ago, when fewer than 25% of mothers of children under six were in the work force, a two-year half-day preschool program for poor children might have seemed like an appropriate response. Today, it does not. In 1990, nearly half of the children under age three were cared for by someone other than a parent. (See the article by Hernandez in this journal issue.) For poor children, welfare reform that requires mothers to work outside the home will greatly

increase the numbers in the future. Moreover, whether or not children are poor, the quality of the ECCE services they receive is important for their development. Poor quality ECCE could be detrimental to the development of any child at any age. It is no longer just the benefits of quality ECCE for disadvantaged children that are at stake.

Bringing ECCE services to all children who could benefit from them will not be cheap. Realistically, the cost of serving all poor children under age five years in quality part-day or full-day (depending on need) ECCE programs could be as high as \$25 billion or \$30 billion per year. If to this amount were added sizable subsidies to nonpoor families to encourage them to purchase quality ECCE, the total cost could approach 5% of the federal budget (though the cost could be shared by state government, as

well). However, based on the evidence presented above, these costs would be offset over time by reductions in social problems that cost society far more each year.

A more comprehensive strategy is needed to increase the public and private resources devoted to ECCE. Such a strategy might include a public information campaign to explain the importance of ECCE quality to parents, paid parental leave for parents of children under one year of age, and public funding for accredited ECCE on a sliding scale with full funding of quality care for children in poverty and partial funding for many more children.⁷⁰ Other alternatives are available, but the important point is that the nation needs to move ahead with public support for ECCE. Current policies are penny wise and pound foolish, inexcusably costly in human and financial terms.

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SUMMARY OF THE PRISM EVALUATION OF MONTGOMERY COUNTY'S HEAD START PROGRAM - 2001

SUMMARY

In 2001, Montgomery County's Head Start program underwent a mandated evaluation by the federal Department of Health and Human Services. The results of this evaluation commended the County's Head Start program overall, but also identified several areas of concern or non-compliance with federal Head Start regulations. Each of the concerns identified was corrected by the Montgomery County Head Start program to the satisfaction of the federal regulatory agency within the required time frame.

BACKGROUND

Every Head Start program is required to undergo an on-site federal assessment once every three years conducted by the Department of Health & Human Services, Administration for Children and Families (ACF). ACF uses the Program Review Instrument for Systems Monitoring (PRISM) to conduct the evaluation. PRISM is both a set of monitoring instruments and a process used to conduct the review. PRISM is based upon the Head Start Program Performance Standards and all other applicable regulations.

The goal of the evaluation is to allow ACF to ensure that Head Start grantees deliver the type and scope of services required by relevant legislation, regulations, and policies that govern the administration of Head Start programs. Through its monitoring reviews, ACF assesses the degree to which grantees meet minimum requirements and determines which grantees require technical assistance.

ACF conducted an on-site review of the Montgomery County Head Start Program in September 2001 and formally sent the results of the evaluation to the Montgomery County Community Action Agency on October 18, 2001.

FINDINGS

The overall results of the PRISM evaluation were positive. Although the evaluation identified several areas of non-compliance, the concerns did not constitute a formal "deficiency" in the program and therefore did not require the development of a Quality Improvement Plan. Major findings of the PRISM review were the following:

- Schedules indicate a healthy balance of teacher-directed, child-initiated, small group, and individual activities. Children are appropriately screened, assessed, referred, and supported with proper materials.

- The Head Start program has a large number of formal and informal Community Partnerships with a variety of agencies that serve low income families. Partners stated that not only had they been able to provide additional services for Head Start families, but that their programs had benefited from their association with Head Start.
- Agency records are complete and accurate, and management monitors all aspects of the program.
- All Management Systems are in good order. However, certain management and program issues need correction or improvement, including:
 - Minimum length of time children spend in class each day;
 - Self-assessment tools;
 - Staff performance reviews;
 - Organizational and financial systems structure; and
 - Classroom and playground safety.

AREAS OF CONCERN/NON-COMPLIANCE

The PRISM review identified the following specific concerns/non-compliance issues:

Program Design and Management

1. The Head Start program is not meeting the minimum time requirement for children to be in class (a minimum of 3.5 to a maximum of 6 hours of class time per day is required). 89% of the program's federally-funded enrollment attended classes less than 3.5 hours in length.
2. The required annual program self-assessment did not cover all the Head Start areas.
3. The Community Action Agency's organizational structure did not adequately address major program and fiscal responsibilities. This can lead to problems controlling program quality, maintaining program accountability, and ensuring consistent quality of service for children and families.
4. Required annual performance reviews of each Head Start staff member were not conducted.
5. The Community Action Agency and Montgomery County Public Schools had not established a system for documenting and categorizing the actual costs of organization-wide development and administrative costs.
6. Financial reports did not include all federal dollars, creating an incomplete financial picture.
7. Playgrounds at several centers contained broken and developmentally inappropriate equipment and other minor safety issues.

Child Development and Health Services

1. The nutrition program did not serve a variety of cultural and/or ethnic foods that would broaden children's food experiences.
2. Fire extinguishers were not readily available, although all of the classrooms did have a sprinkler system.

CORRECTIVE ACTION

On February 5, 2002, the Montgomery County Head Start program responded to the non-compliance findings with a detailed listing of corrective actions taken. Actions taken by the program included the following:

- Classes (for federally-eligible students) were increased to 3 hours and 15 minutes in length with an extended number of class days, leading to an annual class time per student that exceeds Head Start requirements.
- Oversight was enhanced by increasing the position of Head Start Coordinator to full-time and improving the grants financial review processes.
- The annual self-assessment was expanded to include all Head Start areas.
- The Office of Finance identified all development and administrative costs relating to the Head Start grant and established two new index codes to capture administrative costs on a continual basis.
- Financial reports were corrected to include federal dollars.
- All Head Start staff will have annual performance reviews.
- Fire extinguishers were ordered for each classroom.
- Repairs and/or other maintenance measures were initiated to eliminate playground safety hazards.
- MCPS food menus were shown to include a variety of appealing, quality, and nutritious meals that are respectful of each student's needs and differences.

Montgomery County's corrective action plan was formally accepted in May 2002. The ACF noted that with the corrective actions the County's program will "satisfy the requirements set forth in the Head Start Performance Standards and regulations."

EXPLANATION OF NEW FEDERAL REGULATIONS GOVERNING TRANSPORTATION OF HEAD START STUDENTS

SUMMARY

New federal Head Start program regulations require passenger restraints for Head Start students and a bus monitor (or other trained adult) to be on board all buses that transport Head Start students. As a recipient of federal Head Start funds, Montgomery County's Head Start program must comply with these new federal regulations no later than January 2004.

Preliminary estimates by MCPS staff are that it will cost at least \$2 million for the County to comply with the new transportation regulations.

BACKGROUND

The Head Start Improvement Act of 1992 required the federal Head Start program to develop regulations for the safe transportation of Head Start children. The federal process of developing these regulations took nearly a decade to complete and the regulations were finalized on January 18, 2001.

In sum, the new federal regulations require the following of Head Start programs:

- By 1/20/02 to use bus drivers that have a Commercial Driver's License (CDL);
- By 1/20/04 to equip vehicles with height and weight appropriate child restraint systems;
- By 1/20/04 to provide at least one bus monitor (with training) on board each vehicle at all times (can be volunteer); and
- By 1/18/06 to use only school buses or allowable alternate vehicles that comply with federal standards applicable to school buses for "crash survivability and mirrors."

Previously, Head Start transportation policies consisted of a series of "advisory" memoranda published by the federal Administration for Children and Families with varying degrees of implementation among Head Start programs. Additionally, the lack of uniformity among State regulations for Head Start transportation services and oversight was a primary determinant in the decision to create mandatory, nationwide standards.

Key reports that influenced the direction of the federal Head Start regulations included findings from the National Transportation Safety Board (NTSB) and guidelines issued by the National Highway Traffic Safety Administration (NHTSA):

- The NHTSA's 1999 guidelines for the Safe Transportation of Pre-School Age Children in School Buses includes the recommendation to use weight appropriate child safety restraint systems for pre-school age children based on "conclusive crash test results."

- A 1999 NTSB report in response to four accidents in which children were killed while being transported by school vans (including one Head Start child) recommended that "Head Start children be transported in vehicles built to Federal school bus structural standards or the equivalent" and that the NHTSA Safe Transportation guidelines be mandated by rule.

Most Head Start providers across the country provide transportation even though it has not been required. Currently, approximately 75% of all Head Start programs offer transportation services to some or all of their enrolled children; and about 53% of all Head Start enrolled children receive transportation services.

PROVISION FOR WAIVER

Waiver authority was added to the final rule so that, on a case-by-case basis, the Department of Health and Human Services may permit exclusion from one or more requirements of the final rule based on "good cause." According to the regulations, "good cause" will only exist if "adherence to a requirement of the Part itself causes a safety hazard in the circumstances faced by the Head Start, Early Head Start, or delegate agency."

IMPLICATIONS FOR MONTGOMERY COUNTY'S HEAD START PROGRAM

Montgomery County's school-based Head Start program already complies with all of the vehicle, staffing, and training requirements except for the following:

- Children be seated in height and weight appropriate child restraint systems; and,
- There must be a bus monitor or other trained adult on board at all times.

In addition to the above requirements, Montgomery County's Head Start classes located in child care centers (three classes as of October 2002) must comply with the requirement to use an allowable alternate vehicles that complies with federal school bus standards for crash survivability.

ESTIMATED COST OF COMPLYING WITH FEDERAL REGULATIONS

Preliminary estimates by MCPS staff are that it will cost at least \$2 million for the County to comply with the new transportation regulations.

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